



The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1852.—VOL. XLI.

LONDON, SATURDAY, FEBRUARY 18, 1871.

WITH PRICE FIVEPENCE.
(SUPPLEMENT) { PER ANNUM, BY POST, £1 4s

MR. JAMES CROFTS, STOCK AND SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.
(ESTABLISHED 1842.)

The high price of tin is creating an immense demand for shares in good tin mines. At the ROCHE CONSOLS TIN MINE large returns of tin can be made at a cost of about £30 per ton. Black tin is now over £80 per ton. There are five lodes opened upon in the set; one that has been driven upon is worth 30 lbs. of tin to the ton of the lode. The supply of tin-stuff is practically inexhaustible, and the agent states that profits will be returned to the shareholders directly the machinery, which is now in course of erection, is completed. Mr. CROFTS SPECIALLY RECOMMENDS these shares for a great advance in price. The mine is situated at the head of the celebrated Goss Moors, from which millions worth of tin have been raised.

Bankers: Metropolitan Bank.

MR. W. H. BUMPUSS, STOCK AND SHAREDEALER,
44, THREADNEEDLE STREET, LONDON, E.C., has FOR SALE the
following SHARES, free of commission:—
100 Australian Un., 10s 6d. 15 Frank Mills, 28s.
30 Aberdannant, 26s. 6d. 10 Roman Gravels, £97s.
10 Ashton, £4 1/2. 25 Sweetland Crk., £2 1/2.
25 Bwadrain Cons., 26s 3d. 15 Gen. Brazil, 1s 3d pm.
20 Bwadrain Consols, 38s 9d. 10 Great Laxey, £18 1/2.
30 Bronfloyd, £2 1/2. 20 Gunnsdale (Clitters), 5s.
50 Chontales, 10s. 32s. 6d.
30 Caegynon. 15 Great Vor., £5 1/2.
15 Chiverton Moor, £2 1/2. 15 Marke Valley, £7 8s 9d.
25 Drake Walls, 22s. 6d. 80 Pestarena, 10s. 9d.
15 Don Pedro, £2 1/2. 20 Plymhillmon, £2 1/2.
10 East Caradon, £5 1/2. 30 Pacific, 33s. 6d.
5 East Lovell, £3 1/2. 25 Prince of Wales, 33s.
5 Eberhard, £1 6s. 20 Pen'Alt, 30s. 6d.
50 Eclipse, £3 pm. 15 Rosewall Hill.
W. H. B. transacts business in every description of shares at the best market prices, and free of commission.

Daily Price-List free on application.

Bankers: The Metropolitan Bank (Limited), Cornhill, E.C.

JOHN RISLEY, (SWORN) STOCK AND
SHAREBROKER, 48, THREADNEEDLE STREET, LONDON, E.C.
Bankers: London and Westminster, Lombeth.

MRS. WILLIAM SEWARD, STOCK AND MINING SHARE
BROKER, 19, THROGMORTON STREET, LONDON, E.C.
Every description of shares BOUGHT and SOLD at the best market prices.

MRS. Y. CHRISTIAN, STOCK AND SHAREDEALER,
11, ROYAL EXCHANGE, E.C.
NORTH LEVANT.—Mr. Y. CHRISTIAN recommended these shares at £3 10s. per share, since which the mine has paid five dividends, commencing at 5s., and gradually increasing to 15s. per share, which will be declared on Wednesday next. Mr. C. is a buyer or seller.

POLBRENN.—This mine is on the eve of giving dividends. The stamps are at work, and the will soon be sold. Mr. C. recommends the purchase of these shares for early dividends.

WEST POLBRENN.—Mining operations have commenced, and Mr. C. also recommends the purchase of the shares. He will upon application furnish every information, with prospectus and map of the St. Agnes district.

Bankers: Bank of England.

MRS. G. D. SANDY, 48, THREADNEEDLE STREET,
RECOMMENDS for IMMEDIATE PURCHASE the following shares, and can afford reliable information respecting the same:—Van Consols, South Condurrow, West Jewell, Hobbs Hill, West Esagair Lle, and Tamar Valley.
SPECIAL BUSINESS in all these shares.

MRS. THOMAS ROSEWARNE, 81, OLD BROAD STREET,
LONDON.
T. R. has the FOLLOWING SHARES left in his hands FOR SALE unreservedly, which must be sold:—
20 Aberdannant. 270 Taquaril.
100 Bedford Consols. 20 Frontino.
50 Bedford United. 31 Hindston Down.
130 Chiverton Moor. 150 Holmibus and Kelly.
55 Chontales. Bray.
10 Caldebeck Fells. 7 North Roskar.
10 Okel Tor. 30 West Drakewalls.
320 Eclipse. 15 Perran Virgin.
100 Florence & Tonkin. 140 Pen'Alt.
15 Queen. 47 Prince of Wales.
150 Princess of Wales.
Money advanced to any extent upon good marketable mining shares.
Bankers: Bank of England.

MRS. JAMES STOCKER, 2, CROWN COURT, THREAD-
NEEDLE STREET, AND MINING EXCHANGE.
Business in all Stocks and Shares for cash or account.
FOR SALE:—
10 Great Laxey. 55 Taquaril Gold.
10 Great Vor. 55 Eclipse Gold.
5 East Lovell. 15 Sweetland Creek.
25 Van Consols. 25 Prince of Wales.
Bankers: London and Westminster, Lombeth.

JOHN LEAN, M.E., AND CO., STOCK AND SHARE
DEALERS, 5, AUSTINFIARS, OLD BROAD STREET, LONDON, E.C.
J. L. late manager of Silver and Copper Mines, Chill, and more recently from Cornwall.
Gold, Silver, and other Metallic Mines examined, surveyed, and reported on at home or abroad.

Stocks or shares negotiated in every kind of available security.
The following should be purchased at once for a rise in the market, or as an investment, especially the EAST LLANGYNOG shares. We have seen this extraordinary mine, and believe it will soon turn out to be one of the richest lead mines in the Principality. We can offer these shares at £2 5s. each; Tamar Valley shares at present market price, as well as Aberdannant, Terras Hill, Tin-croft, Dolcoath, and Great Wheal Vor shares.

Also the fully-paid ABERDAUNANT shares. These will have a considerable rise. The mine is looking well throughout.

Our Guide to Investors is now ready for issue. Copies forwarded on application, free to clients.

MESSRS. W. M. MARLBOROUGH AND CO.,
29, BISHOPSGATE STREET WITHIN, LONDON, E.C. (Established
16 years), have FOR SALE the FOLLOWING SHARES at prices annexed:—
100 Australian Un., 8s 9d. 20 East Seton, 22s. 6d.
20 Aberdannant, 24s. 9d. 5 H. Eberhardt, £16.
10 Ashton, £6 s. 9d. 50 Princes of Wales, 33s. 6d.
20 Bwadrain Cons., 25s. 6d. 2 Providence, £45.
20 Blue Hills, £2 8s. 9d. 20 E. Grenville, £3 6s 9d.
20 Bwadrain Consols, 38s. 6d. 20 Frank Mills, 27s. 6d.
20 Bronfloyd, 28s. 6d. 20 Rosewall Hill, 8s. 6d.
100 Frank Mills, £1 6s. 20 Rhydatalog, £23.
20 Great Retallack, £1 3s. 20 Roman Gravels, £9 17s.
20 Great Redrake, £1 3s. 20 Roman Gravels, £9 17s.
25 Great Rock, £1 7s. 6d. 25 Rosewall Hill, £9 9s 6d.

In order to prevent disappointment to purchasers residing in the country, no applications from sharedealers will be entertained till Monday morning. Telegrams promptly attended to.

MRS. GEORGE BUDGE, STOCK AND SHAREDEALER,
No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established
21 years), is a SELLER at net prices of:—
1 Devon Great Consols, 100 Bronfloyd, 20 South Condurrow, 4 East Lovell, 55 Trevraccar, 10 Wheal Killy (St. Agnes), 80 West Tremayne, 5 Tankerville, 10 Polbren, 10 Prince of Wales, 200 West Pant-y-Go, 15 Ross and Chiverton, 10 Plymhillmon, 25 West Tankerville, 20 Roman Gravels, 5 West Chiverton, 7 South France, 80 New Beldon, 100 East Chiverton, 2 Van, 50 Van Consols, 1 Dolcoath, 2 New Seton, 50 Perran Virgin, 45 East Grenville, 3 Wheal Jane, 100 Taquaril, 100 Anglo-Brazilian, 200 General Brazilian, 120 Frontline and Bolivia, 100 Anglo-

Mr. BUDGE advises the purchase of Bwadrain Consols shares. If investors compare this mine with others selling at higher prices, they cannot fail to recognise in it a bona fide undertaking.

THE ROMAN GRAVELS LEAD MINING COMPANY
(NEAR THE SNAILBEACH AND TANKERVILLE LEAD MINES,
SHROPSHIRE).

Particulars of this Important and Profitable Lead Mine are to be found in PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARK LIST—SYNOPSIS OF CORNISH AND DEVON MINES," &c., of Friday, Feb. 17, No. 622.

Further particulars will be given in future Circulars.

MRS. PETER WATSON, STOCK AND SHAREDEALER,
79, OLD BROAD STREET, LONDON, E.C.
Bankers: The Alliance Bank, and Union Bank of London.

THE SHROPSHIRE LEAD MINING DISTRICT.—
PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARK LIST—SYNOPSIS OF CORNISH AND DEVON MINES," &c., of Friday, Feb. 17, No. 622, contains the Fourth Portion of a Review of the Shropshire Lead Mining District—to be continued in future numbers.

It also contains information on the Leading Mines of Cornwall and Shropshire.

MRS. EDWARD COOK, E.
STOCK AND MINING SHAREDEALER, 76, OLD BROAD STREET
LONDON, E.C.
Bankers: Alliance Bank.

MRS. W. H. COOKE,
No. 42, CORNHILL, LONDON, E.C.
Daily price-list on application.

MRS. T. A. MUNDY, STOCK AND SHAREDEALER,
38, BISHOPSGATE STREET WITHIN, E.C.
Bankers: City Bank.

MRS. W. TREGELLAS, 122, BISHOPSGATE STREET
WITHIN, E.C., transacts BUSINESS in all descriptions of marketable SHARES on the most favourable terms, particularly the shares of Gold Mines.

W. T. can furnish his clients with the fullest particulars of the Taquaril and the Eclipse Mines, to which his business is mainly directed.

FIVE CARN BREA SHARES FOR SALE,

MRS. E. J. BARTLETT, STOCK AND SHAREDEALER,
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MESSRS. W. DUNN AND CO., STOCK AND SHARE-
DEALERS, 3 AND 4, GREAT WINCHESTER STREET BUILDINGS,
LONDON, E.O.

Bankers: National Provincial Bank of England.

FOR SALE, at prices affixed:—

20 Aberdannant, £4 9s. 50 Great So. Chiverton.
10 Anglo Australian, 8s. 20 Gt. Wh. Lovell, £1 12 6d.
20 Blue Hills, £2 8s. 9d. 50 South Great Work, 2s.
10 Chiv. Valley, £2 5s. 10 Great Vor., £5 10s.
20 Drake Walls, £1 1d 10 North Crofty, £2 11s.
10 East Carron, £1 1d 20 Taquaril, £1 12 6d.
5 East Lovell, £1 5s. 20 Tin Hill, offer wanted
25 Frank Mills, £1 8s 6d. 20 Plymhillmon, £2 4s.
20 Great Retallack, £1 3s 20 Terra, 40 Terras.
25 Great Rock, £1 7s. 6d. 20 Van Consols, £2 5s.
25 Great Rock, £1 7s. 6d. 2 Providence, £3 1/2.
25 Great Rock, £1 7s. 6d. 3 Wheal Chiverton, £4 2 1/2.
25 Great Rock, £1 7s. 6d. 30 W. Pant-y-Go, 14s. 3d.
25 Great Rock, £1 7s. 6d. 30 W. Pant-y-Go, 14s. 3d.
25 Great Rock, £1 7s. 6d. 30 W. Pant-y-Go, 14s. 3d.

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FOR SALE:—

50 Ashton, £4 6s. 2d. 5 East Lovell, £3 1/2.
35 Aberdannant, 24s. 9d. 100 Frontino, 5s.
100 Anglo-Brazil, 2s. 9d. 50 Gt. Caradon, offer wd.
100 Australian Un., 10s. 15 Great Vor., £6.
15 Bronfloyd, £2 6s. 3d. 100 Gen. Brazilian, 17s 6d.
25 Bwadrain Cons., £1 16s. 5 Herodstow, £4 1/2.
10 Chiv. Valley, £2 5s. 100 Hindston Down, 12s 6d.
10 Drake Walls, £1 1d 12 Tankerville, £1 12 6d.
10 East Carron, £1 1d 10 Trumpet Cons., £2 2 1/2.
5 Chontales, 10s. 20 Taquaril, 25s.
10 Don Pedro, £2 12s 6d. 50 Van-tyr-Alt., 25s.
10 Devon Cons., £1 10s. 36 Nanglles, 17s. 6d. 50 Van Consols, £2 2 1/2.
10 E. Grenville, £3 6s 9d. 20 New Lovell, 32s. 6d. 20 West Jewell, £3 5s.
10 Frank Mills, 27s. 6d. 20 North Down, 5s. 20 W. Pant-y-Go, 12s. 6d.
20 Rosewall Hill, 8s. 6d. 20 Perran, 2s. 6d. 20 West Lovell, £3 1/2.
20 Rhydatalog, £23. 20 Roman Gravels, £9 17s. 6d. 20 West Pant-y-Go, 12s. 6d.
20 Roman Gravels, £9 17s. 6d. 20 Roman Gravels, £9 17s. 6d. 20 West Pant-y-Go, 12s. 6d.
20 Roman Gravels, £9 17s. 6d. 20 Roman Gravels, £9 17s. 6d. 20 West Pant-y-Go, 12s. 6d.

Daily List of closing prices in British and Foreign mines published every evening, and forwarded to correspondents (free).

References exchanged. Bankers: London Joint-Stock Bank.

MRS. THOMAS THOMPSON, JUN., STOCK AND
SHAREDEALER AND MINE AGENT, 5, WHITEHALL, S.W.

Mr. THOMPSON advises the immediate purchase of THORNHILL REEF GOLD shares (Victoria). The issued capital is only £15,000, which amount will consist favourably for dividends with some of the more pretentious companies having immense capital. The mine is fully proved, and has large reserves already laid open.

ENDEAN AND CO., STOCK AND SHAREDEALERS,
BRITISH and FOREIGN STOCK, SHARE, and MINING OFFICES,
85, GRACECHURCH STREET, LONDON, E.C.

TERRAS TIN MINE.—WE ADVISE the purchase of these shares without delay, being convinced that it will soon be one if not the leading tin dividend-paying mine in the county. The company is limited. We advise only limited liability companies, cautioning investors to avoid the Cost-Book System as they would a serpent.

ABERDAUNANT is improved. The Van lode will yield 4 tons of lead per fm. Investors may take their agents, or go and see for themselves. These shares will have a considerable advance in price, and should be bought for investment.

EAST LLANGYNOG.—Our Mr. ENDEAN has just returned from this mine, is convinced of its value, and would especially advise the immediate purchase of shares at £2 5s. each, for a rise or investment. We have 45 shares for sale.

From the important discoveries already made, and the quantities of ore being brought to surface, containing rocks of solid lead from 1 cwt. to 7 cwt. each, and parcels of ore going into the market within a few weeks of the formation of the company, and knowing the adjoining mine on the same lode has paid over £1,000,000 in profits, we feel assured this mine will be in the Dividend List almost immediately. We strongly advise it to our clients, and would suggest that, from the great success of this undertaking, other properties are being secured in the district bordering upon the same name, but should be dealt with in great caution.

Mr. ENDEAN, having recently returned from the Welsh mining districts, is in a position to advise whether to buy or sell in either mine now before the public.

All negotiable stocks dealt in for cash or account. One bureau of mines and guide to *bona fide* investments, with price current, will be forwarded free on application to clients.

ENDEAN and Co., 85, Gracechurch Street, London, E.C., Members of the Lombard Exchange, Lombard-street.

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Mr. PIKE can confidently advise the purchase of shares in the West Jewell, Van Consols, and Tamar Valley Mines, either for investment or speculation.

There is a moral certainty of a great advance in the price of these shares.

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of TUCKINGMILL, CORNWALL, MANUFACTURERS OF PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—
THE COIL OF FUSE MANUFACTURED by them
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TABLE GLASS OF ALL KINDS.
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For STATIONARY and MAKING ENGINES, has the following advantages:—
SAFETY; NO RISK from DANGEROUS EXPLOSION; HIGH-PRESSURE STEAM, with ECONOMY OF FUEL; perfect circulation, and ready means of removing sediment.
Saving of cost and time in repairs; portability, and, for export, great saving in freight.

Patentees and Manufacturers: J. and F. HOWARD, Britannia Iron Works, Bedford.
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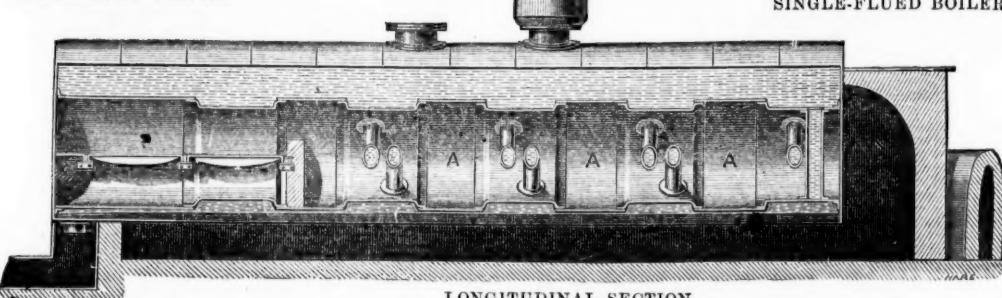
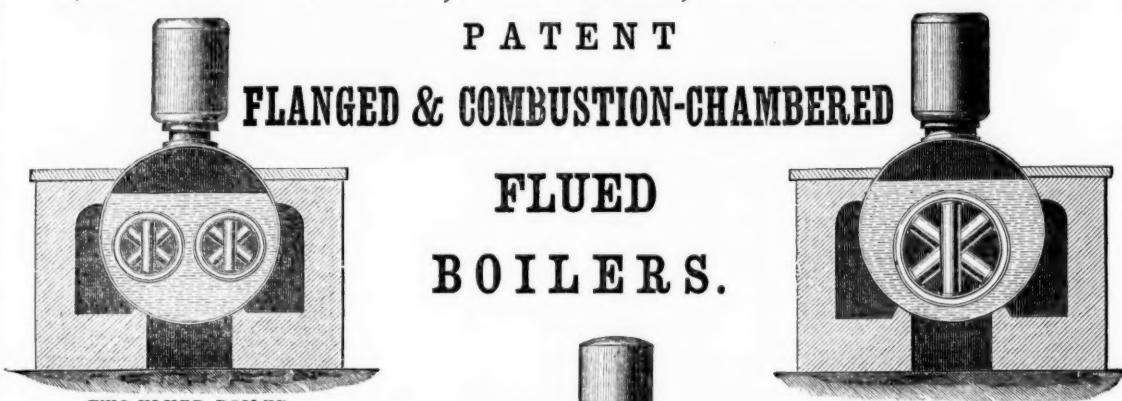
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For particular kinds of Machinery, the Oil may be specially prepared of a consistency and character adapted to the nature of the work to be done.

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"I herewith certify that the Rangoon Engine Oil, manufactured by Messrs. Chas. Price and Co., is free from any material which can produce corrosion of the metal work of machinery. It is indeed calculated to protect metallic surfaces from oxidation.

"The lubricating power of this oil is equal to Sperm or Lard Oil.

"T. W. KEATES, F.C.S., &c., &c."

Every parcel of the Oil sent from the works bears the Trade Mark of the Firm.

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WORKS: MILLWALL, POPLAR.

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Further issue of 3000 paid-up shares of £1 each at par, for the erection of crushing and dressing machinery.

The following report has been made by Mr. GEORGE HENWOOD, the celebrated mining engineer, on this most extraordinary property:—

"Yesterday I completed my three days' survey and examination of these mines, and now express my opinion thereon.

My first effort was to visit the adjacent mines with the view of ascertaining their antecedents and their present state, as well as the continuity in length and depth of these lodes; these I found perfectly satisfactory, inasmuch as their copper and silver-lead prove far exceeds in richness the average value of those of Cornwall and Devon. They have been wrought for ages to the distance of miles, and to the depth of 150 fathoms—in fact, the Drwys-y-Coed Mine, adjoining the Cwm Dwyfor, on the north, is the Dolcoath of Wales."

My next proceeding was to take a surface survey to ascertain the extent of the set, the composition and situation of the lodes, the nature of the strata, the natural facilities afforded for working, and the conveniences for transit of produce; these I also found equally satisfactory.

The set extends one mile and a half east and west on the course of the lodes,

and the same distance north and south, and is, therefore, practically inexhaustible.

The physical aspect of the country is a steep descent on the south side of a mountain rising to an altitude of nearly 3000 feet above the level of the sea;

the strata are Cambrian slates, between protruded rocks of hornblendic and felsitic porphyry on the east and west, and are traversed by dykes of elvan,

greenstone rock, &c., having a north-east and south-west strike, with faults

and cross-faults of quartzite rock running. In the same direction; the lodes

are numerous, bearing east and west, or within a few degrees of these points,

The natural facilities for working I have never seen exceeded; the mines may be worked for generations by day levels or adits, the ascent being so steep short

galleries only will be required to reach the lodes, when the winzes or communicating shafts to remove the ore will be all the excavations required other than

ventilation or drainage. No expensive shafts will have to be sunk, or costly

machinery for pumping or drawing purchased, nor will there be any charges

for that usually heavy item in cost sheets of surface damages. Two never-falling

mountain streams unite at a plateau about midway up the mountain, affording

power and all the requirements for dressing purposes without a shilling cost

in cutting water-courses, leats, &c. Any number of wheels of suitable dimensions

for crushing and washing the ore may be set to work; the ore can be sent

to the wash places from the levels by inclined planes, and, after manipulation,

by railway—now about to be laid down for the new Prince of Wales Slate Quarry

to the shipping port—so that economy in dressing and transit will be carried

to the utmost limit.

I proceeded to examine No. 1, or the upper copper mine, by entering the old men's level 900 feet above the river in the valley, about midway thence to the mountain top; the lode here has not been cut through from wall to wall, the footwall only being visible; this is well defined, and dips north about 25°. Only 17 ft. in width of the lode has been proved; the surface appears show it to be very much wider. A few fathoms east and west have been driven, and a pit sunk 10 or 12 ft., from which nearly all the produce has been carried away and sold.

At the entrance to the level piles of the old men's refuse still attest the richness of the ore that had been sent to market; still better proof, however, is afforded by the present state of the end east, from which I broke splendid specimens of yellow ore for your satisfaction; I never saw better at so shallow a depth, 10 feet from the surface. In the pit sunk water prevented the previous workers following the rich shoot of ore gone down. You may at once resume the work, as your deeper levels have let the water down; the lode is composed of quartz, gossan, oxide of iron, chlorite, white and yellow munde, with rich peacock and yellow copper ore, worth at present 2 tons per fm.; this level should be extended through the lode, and the place cleared up to raise ore forthwith.

No. 2, or lower level of upper mine, has been commenced about 29 fms. south of, and 26 yards below, the old men's. It has been driven several fathoms to cut the lode; the first few fathoms were in loose disturbed rock, mixed with erratic stones of lodestone tumblers, yielding abundant evidence of the contents of the lodes above, whence they must have been disrupted. At a few feet from the entrance into the solid rock a lode, 3½ ft. wide, was intersected bearing east and west, having smooth, well-defined walls, and dipping slightly north (about 6 in. in the fathom); this lode is composed of quartz, capels, munde, and copper ore—10 ft. north of this a lode, 8 ft. wide, was met with, the walls well developed, and having the same direction as that previously described; it is composed of quartz, capels, chlorite, munde, a little blende, with yellow copper ore throughout—a splendid lode, nearly perpendicular. In depth these two lodes will probably unite.

At the distance of 10 fms. further north the old men's lode has been cut into for 9 ft.; as far as seen it is composed precisely as in the upper level, save that the proportion of copper ore greatly increased. This work now drains the upper level—a decided proof of the continuity of the lode in depth, and of its improved value, and may be taken as a guide for future operations.

The whole of this level is well executed, securely timbered, and tramway laid down with proper wagons, all in perfect working order. These three valuable lodes have been thus proved by this one level, and at a comparatively small outlay.

While at this point I observed certain indications which induced me to ascend to the summit of the mountain, especially as I had noticed similar appearances at the back of the mountain on the north-east slope; I found it to be a large space across-course; the old men had been here, too, to test it. I judged it to be only relatively valuable, as being one of the great contra lodes usually producing marvellous effects on other lodes with which they come in contact, of which a remarkable instance, visible at the surface like this, occurs at the Foxdale Mines, Isle of Man; they are not, however, metalliferous.

Then descended 200 ft., and 200 fms. south to No. 1 lode on the lower mine, where I found a shaft had been sunk 21 ft., and levels driven several fathoms east and west on a silver-lead lode 6 ft. wide, the whole of the contents of which had been taken away except a few halvans lying about; these are rich in silver-lead (galena). The quantity carried off must have been very considerable. The old men evidently purposed doing great things, having erected smithy and sheds, and laid out dressing-flors, but they could not combat the influx of water from so large and hollow a lode as this appears to be; a late attempt by eight men continuously at work could not accomplish it. A wheel should be immediately erected for this purpose, and ore at once procured from this source.

At 11 fms. south a fine copper lode has been wrought on for 10 fms., and a shaft sunk 10 ft. only; the contents here, too, have all been carried off except a number of refuse stones at the surface: this lode is 18 ft. wide, and is of precisely the same character and composition as the lodes in the upper mine.

Six fathoms further south another east and west lode has been opened on, in all respects similar to the other copper lodes; this has been proved to be continuous by a pit sunk 12 fms. west; it is also visible in the bed of the river, whence I broke out good copper for your inspection. This terminated my labours. I may here observe that no proof has been attempted or afforded of the ground lying between the upper and lower mines. My opinion is that it will be found equally productive with the rest; this will, however, be necessarily effected as the work proceeds.

The works should be, as commenced, by galleries driven at regular intervals, so that the ore may be sent by the before-mentioned self-acting inclined planes from the drivages east and west on the various lodes; these galleries or main streets should be taken up forthwith. No doubt can exist as to the progressively increasing value of the ores in depth, therefore every energy should be directed to this end, especially a main deep level, which will necessarily take some time to execute, but will ultimately re-pay its cost a thousand fold.

In order to give you a comparative idea of the value of the property, allow me to observe that you have a mine literally inverted; you have all the time and immense cost of sinking shafts saved, irrespective of the enormous expense for such machinery as would be absolutely necessary to develop such splendid lodes—a saving of not less than £30,000 in money, and ten years in time—besides which you may make these mines remunerative forthwith.

Most of our great mines commenced under somewhat similar but infinitely less favourable conditions—the heights of the hills not affording backs to anything like the extent obtainable here. In the great mining districts of Cumberland, Yorkshire, Durham, and North Wales kindred attempts have invariably been attended by permanent successes. In India the great discovery of silver lead I made, and which is now yielding grand results, was under circumstances perfectly identical.

I have been thus exhaustive in my report, because I am convinced of the vast importance of this extraordinary property. I may now sum up my views by stating that you have only to proceed vigorously, and with common prudence, to render this a standard dividend mine of no ordinary character, and that your shares must soon be greatly enhanced in value."

* Dolcoath is one of the oldest and richest mines in Cornwall.

Messrs. Claude's assay of the copper and lead gave the following results:—

Copper..... 18·90 per cent.—Lead..... 42·6 per cent.

Further assays of various samples taken by Mr. Henwood from the several lodes have confirmed the belief that the copper, as well as the lead, contains a considerable quantity of silver, and that the matrix of the lodes also rich in silver.

There is, therefore, no doubt that from these enormous and highly productive lodes not only may great returns of copper and lead be anticipated, but that the value of the property will be largely enhanced by the silver, which evidently permeates not only the entire mineral portion of the lodes, but the whole of the matrix contained between the walls.

The following assays of the lead and copper from the Cwm Dwyfor Copper and Silver-Lead Mines have been made by Prof. White on some of the debris of the lodes:—

No. 1.—Lead..... 30·0 per cent.

Silver..... 12 ozs. 5 dwts. 0 grs. per ton.

No. 2.—Lead..... 11·4 per cent.

Silver..... 11 ozs. 15 dwts. 4 grs. per ton.

No. 3.—Lead..... 29·1 per cent.

Silver..... 12 ozs. 14 dwts. 9 grs. per ton.

No. 4.—Copper..... 36·1 per cent.

Silver..... 4 ozs. 11 dwts. 3 grs. per ton.

Carbonic acid..... 4·6 per cent.

No. 5.—Copper..... 12·7 per cent.

Silver..... 7 ozs. 3 dwts. 11 grs. per ton.

No. 6.—Silver..... 8 ozs. 2 dwts. 5 grs. per ton.

No. 7.—Copper..... 24·2 per cent.

Applications for the further issue of shares must be made to the Secretary, at the offices of the company, accompanied by the sum of £1 per share on the number of shares applied for.

GUIDE TO INVESTORS.

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THOMAS SPARGO, Gresham House, Old Broad-street

THE MINING JOURNAL.**Original Correspondence.****HOME INVESTMENT.**

SIR.—Capital has its duties as well as its interests. In the very nature of that possession, recognised as wealth, is inevitably blended a responsibility, which when neglected sooner or later never fails to draw down certain punishment on all guilty of that sin of omission. The moral asserts itself as inflexibly in the case of communities as in that of individuals; the adverse consequences to the latter may not be so discernible, but those baneful influences upon the former become patent to all, and felt by all, because they warp the social web, and in thus weakening the strength of the staple mar the general utility. To diffuse itself by well-regulated gradations from its point in the circle to its circumference is not only the duty, but the essential interest of capital. I use the word as representing a class, for few, indeed, are the exceptions to that order in human affairs by which home industry has made its progress, medium, as well as the soundest basis, for the accumulation of wealth, private or national. And thus it is that to solve the problem in political economy which points the wisdom of making the export trade of a country the primary source of import commerce invokes the energy of every nation that aspires to the stability of capital, the endurance of prosperity, and the achievement of progress.

The culture, then, of the natural soil from surface to fathom is the chief and most valuable industrial principle of a people who desire to rise to greatness, or who, having reached that elevation, would preserve the dominance which emanates from it. On this subject a quiet old writer lays it down that "The hand which delves the deepest into the resources at home of soil, rock, rubble, and ore-riift can reach the farthest abroad;" and we may follow out his notion by saying that in a general sense the strata are of the deepest whence springs into upper life the stock of the national tree, beneath which a people can best shelter in peace, and eat the fruit of that planted by their hands, and trained into mighty and prolific strength by their intelligence.

England is the most illustrious example of a country which has pursued the policy involving such an industry, but as there exists a flaw in the soundest system of human philosophy, she also represents the anomalous type of a community that to a certain extent in a false and fatuous vagary of independence affects the leisure of a periodical neglect of that very labour which has in the main yielded her the means, not only of acquiring power, but of consolidating its strength. What the heart is to the system mining is to England. Such it has been in the past, is at the present, and must be in the future. Nor can she at any time relax the prosecution of this industry without a certain depreciation of her most important interests. In this department of her vast resources the energies suited by nature to her people cannot brook delay, and now arise from its depths into broad light those uncontrollable proofs of the enormous value it has been for cycles up to the present day, not only to public but to private enterprise.

The first glance at the estimate they indicate shows that British mining, dissociating even coal and iron, the Titan resources of the United Kingdom, from any part of the record, has supplied more millions in profit to productive and reproductive labour than have ever resulted from almost a total combination of all our other industries, while the losses to which speculation has been subjected in mining are, in regard to gross expenditure, small, and their relative position to those of other enterprise is as one to a million. Taking, for instance, the whole range of reproductive operations by skilled labour, the shipping trade through all its channels, railways everywhere throughout the empire, banks, financial associations through all their varieties, and those have been many and ingeniously organised—together with shoals of other genera of money-devourers, I find that more losses have occurred from them to British capitalists within what may be termed a speck of time than can be laid to the charge of mining in this country since the Anglo-Saxon era. Surely this is a *prima facie* evidence of intrinsic worth, which should effectually put the confidence of the moneyed classes of England; but the inquisition into its values does not stop at this point. Coming to the item of percentage upon sum invested, it will be found that from 50 to 1000 per cent. has been realised by fortunate shareholders, and not in rare, but very many instances; that more peasants have through mining become large landed proprietors—that fortunes lost in other industrial pursuits have been retrieved in this, and that by it have several families been raised from the utmost obscurity to a distinguished independence.

These facts are indisputable, and, better still, they are renewable. To argue from the premise that because a few old mines in Cornwall, Devonshire, and elsewhere have shown symptoms of exhaustion after vast annual returns, extending over two-thirds of a century, there is a limit to the discovery of masses of ore beyond their immediate neighbourhood is ridiculously illogical.

Were such an argument for a single moment admissible an identity of stratigraphic formation with that which truthfully indicated to the old miners riches in depth in such immense masses would be fallacious, deceptive, and treacherous, whereas the direct contrary in the great majority of instances has marked the rule. There is no fluty, no point that indicates "rest, be thankful, and try no further," on the course of mining deposits; quite otherwise, there is rather to be found the gravest page upon which the experienced eye reads encouragement to proceed, and wherein Nature's flat is stamped, that such and such features towards the surface are given to express a solid mineral character at depth. It would be inviolable to single out and enumerate by name a number of undertakings that would substantiate the truth of our argument, but if either inclination or space would permit it some dozen or thirteen mines might be cited out of a single county (Cornwall) which in the aggregate, upon an outlay of 230,605, 18s. 4d., yielded profits to the amount of 2,947,327, 17s. 6d. sterling. Other instances can be given and authenticated. In Wales, especially, I instance the Van Mine, a dividend-paying property, recently purchased for the sum of £6,000, and has since been marketable at over 1,000 per cent. Fifteen others may be cited of equal interest, and it is believed that the EAST LLYNNGYNOG, omitting its present position and prospects, will soon identify itself with the acknowledged increased value of the others. This company has been recently formed, with limited liability. Parcels of ore are already being dressed for the market, and there cannot exist a doubt that East Llynngynog will soon take rank on the Dividend List with the first mines of the Principality.

In the meantime, let the public be convinced that there exist in certain districts and localities being probed at the present time, and which I shall presently name, indications exactly similar to—nay, some are more promising still—those which, like guides of light, led the pick and gad through the unexplored fathoms to those founts of wealth whence those immense profits were derived. And all this came to pass without the aid of that science now brought to bear on mining. The sceptic must be inveterate who would attempt to cavil with the statements we have thus put forth. Let our friends be assured that mining in this country will, like history, repeat itself, that England's endowment of mineral riches is perpetual, and that Pluto's *regnum donum* to her is to be shared in as liberally in the future as it ever has been, if properly sought after.

J. P. ENDEAN.

MINING SHARES—BROKERS' QUOTATIONS.

SIR.—I too, Sir, like "One in the Dark," could never fathom the mysteries alluded to by your correspondent, why such serious discrepancies should be made in the prices of shares, unless they were quoted from the holders selling by force of sheer necessity, or that the professional vendors pretended to sell for the purpose of "bearing" the market. In the former case, all well and good; in the latter the villainous traffic allows the custom, I believe; but I, for one, will not allow any properties I invest in to be so ruthlessly and scandalously dealt with; at the same time, I am firmly object to undue laudation, and too sanguine tempers getting the better of their more sober reason. With these sentiments I visited the Terras Mine, one which was quoted by "One in the Dark," and one in which I am a shareholder. I ascertained on the spot that no unreasonable delay in the work had taken place, the weather being the sole cause of this mine, in common with all others I also went over, of the little falling off in the returns, and of the completion of the machinery. I also saw for myself the marvellous effects of Blake's Stone-Breaker, and its admirable adaptation to the work of this mine. I also saw the rich stones of produce from Edwards's lode, and the utter impossibility of working the deep level on it until dry weather sets in. I found the zealous managing director on the mine, who afforded me every particular in the most straightforward manner possible, a striking contrast to the dubious and technical language one generally hears when asking pertinent, not impertinent, questions on a mine. I gleaned the following particulars, which I publish for the benefit of my fellow-shareholders, as well as for my own behalf. That there will be a good batch of tin ready for sale in March, that the reason the tin I saw in the hutch (some tons) was not sold this month was that they had reason to believe they would obtain a better price by having a larger parcel to ticket, and were not necessitated to sell; the latter reason pleased me well.

Next, that the lord of the manor had lately been on the ground, and seeing the energy of purpose displayed on the works already executed, had consented to lower the dues to an extent that will save the company some hundreds per year, to grant all the land extra that is required, and to grant a new lease, embracing these conditions for the term of 21 years. I further saw that no less than seven east and west lodes had been opened on and proved to be stanniferous, and that the new ground embraced an important elvan course on the west; that a large alluvial cross-course had been discovered, 25 ft. wide, and 50 fms. east of the great elvan now being worked on; this elvan intersects all the east and west lodes, and is in close proximity to the new East Terras property. I also saw the spot at which a new engine-shaft is to be sunk to cut the Edwards's lode and drain the east and west lodes. This shaft is to be commenced as soon as the weather breaks up, so that by the time the house for the engine, now fast approaching being ready, is on the mine it may have work to do in the proper place, and without delay. I also saw the plans for the floors, and the materials now being delivered for constructing these floors. A plan of the works is also prepared, and is to be lithographed for the use of the shareholders. I also saw some letters from the patentees of the various improved stamps, apologising for the delay they have caused, and I now know how the determination of the directors is to have the most useful that can be procured and command their apparent delay.

In making these remarks I have no objection to serve beyond that of satisfying my fellow-adventurers that we have a valuable property that is being carefully and rapidly developed, and that before the year 1871 closes the Great Terras, as it is now locally called, will be an important mine. I wish them not to be led away by the foolishly over-tated representations of brokers' advertisements, nor to be frightened out of their property by needy sellers or knavish tricks, but to calmly watch the progress of the concern, and at the end of the year let those laugh who win, as I am sure will every—

SHAREHOLDER IN THE TERRAS TIN MINE.

MINING SHARES—BROKERS' PRICES.

SIR.—In last week's Journal I notice a letter, signed "One in the Dark," in which the incongruity of published prices with regard to certain mines is commented on. Now, it is evident that if the correct market price is named in the regular quotations, no broker can possibly be able to supply those shares at one-half of that price, and on the other hand, if the advertising men are able to supply the shares at the sum they name, no legitimate business could have been

done at twice that amount. From personal experience, I can only say that on application to a firm for shares at its own advertised price I have been often times successful in procuring them at a low figure, and it has been the exception when I have received for my answer that "they have been just disposed of."

Mining Correspondence.

BRITISH MINES.

ABERDAUNANT.—H. Francis: There is no new feature to notice either in the lode or the north side of No. 2 adit east. The stopes above this level or in Rule's cross-cut, north from deep adit east; all these points are much the same as last week.—Dressing Department: We are short of hands on the dressing-floors, otherwise 8 tons of clean ore would have been in the bin by this time.

ASHSHETON.—W. Johns, W. Tipton, Feb. 14: At Lindow's engine-shaft we are still forcing on the 10 fm. level cross-cut to intersect the lode. No. 2 winze, below the adit level, is worth 15 cwt. of lead ore per fathom. The stopes in the back of this level are worth 12 cwt. of lead ore per fathom. Since we have resumed the sinking of Gaudry's shaft by the side of the lode good progress has been made, and the character of the ground is very congenial for mineral. At Mawr shaft nothing has been done to the lode since last reported on. Now the weather is more favourable we have set the crusher to work, and commenced dressing.

BEDFORD CONSOLS.—J. Mitchell, Feb. 15: In the middle adit level cross-cut south we are driving by the side of the cross-course referred to last week, and we intend cutting through the eastern wall of it in the course of a few days, when you shall be advised. The north tin lode in the bottom of the shaft continues to look exceedingly kindly, and is worth for its length, 12 feet, 20*t.* per fathom for tin.

BEDFORD UNITED.—J. Phillips, Feb. 16: Present appearances in the shaft indicate that the lode is near, when intersected it will be cut through, and its size and character proved. We are driving by the side of the lode in the different levels. The lode in the 103 west and 90 east having improved in the lode taking down, we have put on two men more in each end, making a full pare for each of these levels, in hope of further improvement. The stopes are of the same value as last reported. Good progress is being made at the 47 east on the south lode. The lode is of the same size and character as for some time past.

BLAEN CAELAN.—J. Evans, Feb. 15: The sinking of engine-shaft from the 10 to the 20 under old adit is proceeding satisfactorily, though the ground gets harder as depth is attained. The lode in the end of the 10, east of old adit, is still improving, and is now worth fully 35 cwt. per cubic fathom. The level east of old adit, and the drivage west from new or main adit, are within 5 or 6 fathoms of each other. The cross-cut north is in a very promising channel of ground for mineral. The surface works proceeding very satisfactorily.

BLUE HILLS.—S. Bennetts, A. Gripe, Feb. 10: There is not much change in the lode in any of the points operated on during the week. In the 65 cross-cut, thirtieth of Letcher's shaft, we have just cut the wall of what is likely to prove one of the large gossans; if so, we hope it may heave the lode high enough to be able to see it in this level. From the fact of tin being found at this point there is a strong probability of such being the case.

BWADRAIN CONSOLS.—R. Norhey, Feb. 13: Our operations have been carried on with regularity since the breaking up of the frost, which, however, caused us serious delay. The machinery is now in regular working order, and all the bargains are the same. The lode in the 55 east is 3 feet wide, with good branches of blonde, mixed with lead ore. The lode in the same level west is 2½ ft. wide, composed of killas, spar, and thin strings of lead ore; an improvement may be expected here soon, as the level is nearing the ore ground below the 45. An improvement may also be expected for the same reason in driving the 45 west, where the lode is wet, and improving in strength as we advance. There is a same favourable appearance in the adit at Dolfawr as hitherto reported on, but no particular alteration to remark on now. The stopes, on the whole, are without change.

BWLCH CONSOLS.—R. Norhey, Feb. 14: The lode in the 70 is 2 feet wide, with a mixture throughout of lead ore, quartz, &c.; the driving of this level has been retarded by the water being in during the late frost. The stopes in the back of the 70 are worth 25 cwt. of lead ore per fathom. The value of the lode in the 60 has somewhat fallen off; at this point there has not been much done since last report on account of the place being full of stuff. The stopes in the back of the 60 are now worth on an average about 15 cwt. per fathom, and improved since the last report. The stopes in the 50 are without alteration in value. The stopes in the back of the 30, and the 15 fm. levels are worth 1 ton and 18 cwt., respectively. North Lode: The 40, east of the cross-cut, shows a lode 2½ ft. wide, of a strongly mineralised character, letting out a good deal of water, and having a m.o.t. promising appearance for an improvement. The stopes above this level, and east from the winze, is worth 3 tons per fathom.

CAGNEWTON.—T. Hodge, Feb. 15: In taking down the lode in the 50 west we find it to be large; the most productive part we shall leave to the south; the part carried is 2½ ft. wide, yielding dressing work. There is nothing new in the other bargains.

CARDIGAN BAY CONSOLS.—Chas. Williams, Feb. 16: Pensarn: The east and west lode at this part of the mine is continually improving, and yielding large blocks of rich ore, weighing from 60 to 100 lbs. in a lump. —Boundary Adit: The lode in this level is without any change since my last letter. I have removed the men from the north and Bryn Arian old adits, and put them to work at Pensarn, where we are breaking splendid ore.

Castle BRWYNO.—T. Parkyn, Feb. 16: I have cleared the 15 completely from the incline to the east pit, and have had a considerable quantity of overburden removed. I have also thoroughly repaired all the stamps (48 in number), and now all things are in a good condition, and working well. The stamps are kept working day and night, and the tin coming from them is most satisfactory, which you will find from the return last month, being 250*t.*, while the cost in getting it was not more than half that amount. In addition to this you will see that we have done a great deal of work in the way of repairs &c. I am well pleased, indeed, to be able to inform you that the ground in the east pit is opening up splendidly, and you have immense quantities here all laid open, so that it can be sent into the stamps at a cheap rate. I have let everything by the ton: 12 men have taken the raising, spalling, and trammeling into the stamps for 4d. per ton, and they are getting good wages; they have also 12*t.* per ton of the raised, so that they have an interest in getting all the possible. All things are going on well, and the mine making good profits. We intend sinking next month, and when the sink is down I will double the returns. This sink will require four months to complete, when it will take a lifetime to work away the elvan at that depth, as you are aware it is 12 fm. wide. The prospects of the mine are most cheering indeed.

CEFN BRWYNO.—James Paul, Feb. 15: The water is again in fork to the 92, and we have re-commenced the driving of that level west to-day, where the lode is worth 1½ ton of lead ore per fathom. In the stopes over this level, 60 fathoms east of shaft, the lode is 5 ft. wide, and will yield 14 cwt. of lead ore per fathom. The 92 east, from the winze below the 80, is being driven with full dispatch, and the lode contains good branches of lead ore. Preparations will now at once be made for sinking the engine-shaft below the 92. The 80 west is now clear of stuff, and the level is being extended in a large lode, which is producing good stones of lead ore. The lode in the two stopes over this level, west of winze, is worth, on an average 12 cwt. of lead and 15 cwt. of blonde ores per fathom. In the stopes over the 56 east the lode is 5 ft. wide, producing 1½ ton of lead ore per fathom. To-morrow we shall sample 32 tons of lead ore; and now that the weather is open again, all surface operations are being pushed on with full speed, and we shall endeavour to get the parcel of blonde ready for sale as quickly as possible.

CRENNER AND WHEAL ABRAHAM UNITED.—Wm. Kitto, W. Thomas, Feb. 14: At Sturt's engine-shaft the sumpman will fix the lift in the eastern in the 205 to-morrow, afterwards they will drop the bucket-lift below, and clear the shaft to the bottom. At Pelly's engine-shaft the sumpmen will finish tomorrow bed-planking the whin-shaft to the 210, in order to clear the levels east and west of the shaft, which we shall do with all the dispatch possible, in order to set the tin ground already discovered. The 95 end, driving west of Willamy's engine-shaft, is worth 4*t.* per fathom for tin. The 170 end, driving east of Blewitt's shaft, is producing 2 tons of copper ore per fathom. The cross-cut driving north and south is without change, as also are all the other tutwork operations throughout these mines.

DOLCOATH.—J. Thomas, Wm. Provia, J. Tonkin, J. Bowden, Feb. 13: The 302, east of engine-shaft, which is being driven on the south part of the lode, is worth 15*t.* per fathom. We have recently bored into the north part of the lode, which we find to be of much greater value; the whole of the lode for 9 ft. wide, is probably worth 40*t.* per fathom. New east shaft, which is about 20 fathoms before the 302, is sunk 5 fathoms under the 290, and is worth for 9 ft. long 15*t.* per fathom. The 290, east of new east, has much improved of late, and is now worth 60*t.* per fathom. The 290, west of old sum, is worth 20*t.* per fathom. The 278, west of old sum, is worth 10*t.* per fathom. The winze under the 268 is sunk 20*t.* and is worth for 9 feet long 90*t.* per fathom. The 278, east of new east, is producing a little tin. The winze under the 268, just behind this end, is sunk 6 fathoms, and is worth for 9 ft. long 50*t.* per fathom. The 266, west of old sum, is worth 30*t.* per fathom. The 266, east of new east, is producing a little tin. The 254, west of old sum, is worth 30*t.* per fathom. The 254, east of new east, is unproductive. The winze under the 242, east of new east, is nearly closed to the 254, and is producing a little tin. The 212, west of old sum is worth 12*t.* per fathom. The 230, east of new east, is producing a little tin. The 220, west of Harriett's, on the north lode, is worth 25*t.* per fm. The 206, west of Harriett's, is producing a little tin. We have commenced to sink a new shaft under the 212, west of Harriett's, which is worth for 9 ft. long 60*t.* per fathom. We are driving a cross-cut at the 224 towards this part, and hope to intersect it in about four months. The 215, east of Stray Park, is worth 10*t.* per fathom. We have commenced to drive the 238, east of Stray Park, where the lode is producing a little tin. The north Entral lode is unproductive. The steam stamps with 4 heads, which we purchased at Stray Park, has been removed to this mine, and is working very satisfactorily.

EAST CALN BREA.—J. Rolda, Feb. 15: The lode in Buckley's shaft, sinking below the 90, is 18 in. wide, producing good saving work for copper ore, and carrying more fluor-spar, which we regard as a favourable indication for improvement. In the 90 west the lode is looking just the same as last reported, producing 1 ton of ore per fathom. In the same level east the lode is small. No alteration in the 60 fm. level cross-cut north of the old engine-shaft.

EAST CHIVERTON.—H. Southey, Feb. 15: Since our last the end driving east in the 40 fm. level, on No. 1 lode, is very much improved, now 4 ft. wide, thickly impregnated with munde, and spotted with silver-lead ore. This is the first lead we have ever seen going east, and we have every reason to hope that when the lode is intersected in the 50 fm. level it will be productive one. Good progress is being made in the engine-shaft, sinking about 2 fathoms per month, by a full pare of men, at 2*t.* per fathom. We hope to reach the 50 fm. level at the time named in our former report, when a short cross-cut will be at once put out north, to intersect the lode alined to the lode above. Since the alteration in our pitwork the engine continues to work satisfactorily, with a great reduction in the consumption of coal.

EAST LLANGYNNOG.—E. J. Burns, Feb. 10: There is a great improvement in the 11, in the winze on the south lode; it is 8 in. wide, solid lead. As the cross-cut we have opened to the old men's workings, which has rather surprised me. Particulars in a day or two.

EAST PHENIX.—James Seecombe, Feb. 10: The 170 cross-cut to drive north, by six men, at 2*t.* per fathom. We are into the lode intersected in this cross-cut 2 ft., thus far it is composed of hard capel, thickly impregnated with munde and yellow copper ore. I hope we shall soon get through this, when I have no doubt of finding easy ground for continuing the cross-cut. The 170 to drive west, as directed, by six men, at 1*t.* per fathom. After driving 3 ft. further we shall be able to carry the level on the south side of the lode, where the granite is moderately favourable for driving in; the lode is small, but producing stones of tin, and promising to improve. The trial shaft, on Phenix lode, to sink by two men, at 5*t.* 10*t.* per fathom. There is no change here.

EAST TERRAS.—J. H. James, Feb. 15: The more I examine this property the more distinctly do I perceive the highest probability of soon opening up a great and lasting mine; the geological position cannot be surpassed, and is identical with that which is found in the adjoining mines. The sett, which is extensive, contains Terras lodes and Fortescue Consols lodes; they are continuations of those which were so productive for tin, &c., to the east, which I named in a former report, and as they are embedded in the same congenial strata as the lodes in the mines referred to, and are in addition associated with elvan, and intersected by numerous cross-courses and caunter lodes (the caunters in these mines have been very productive for nickel, and at the intersections have made very large deposits of tin); Indeed, taking into consideration the geological features of this mine, together with the nature and position of the lodes, no practical mineralogist can doubt that wealth equal in proportion to that of the mines already referred to would result from the development and production of their lodes in this sett. Besides these valuable lodes there is also a highly stanniferous elvan course traversing the entire length of the sett; it is composed of felspar, quartz, schorl, protoxide and peroxide of iron and tin. Trial pits are being sunk on this elvan course, and are opening up prospects of a very promising character; the chances preponderate greatly in favour of its proving abundantly rich for tin ore. The lodes are composed of metalliferous gossan, quartz, capel, sesquioxide, and protoxide of iron and tin ore. I have assayed several samples of tin, taken from the backs of the lodes, from different parts of the sett. The average produce of these samples is 3 cwt. 3 qrs. 20 lbs. of black tin to 100 sacks of the tinstone. Should the yield of these lodes extend in depth there is hardly a limit to be fixed as to ultimate returns and profits when the works become extended and fully developed. From a careful consideration of all the circumstances, and having regard to the present facilities for conducting mining operations, I am of opinion that this mine offers a prospect of success of no ordinary character.

EAST WHEAL GREENLEIGH.—G. R. Odgers, Feb. 11: The lode in the 75 east is improving, and we will send you full particulars on Wednesday. All the other places are looking the same as last reported.

—G. R. Odgers, W. Bennett, Feb. 15: The men at the 120 are very busy clearing out the cross-cut. The lode in the 95 east is 18 in. wide, producing good stones of grey ore, and letting out a large stream of water; this is a kind of lode. We have no alteration to notice in the 85 east. The lode in the 75 east is about 2 ft. wide, worth fully 2½ tons of copper ore per fathom; fine-looking lode, which is indicating another course of ore. We have done but little by this lode since Monday; we hope to see something more to-morrow, when you shall be further advised. This end is now 18½ fms. behind the winze sunk below the 55, where there is a good lode for copper; and, seeing that it is also thoroughly drained, increases our opinion that we shall quickly meet with some good improvement. The stop above this level is worth 2½ tons of copper ore per fm. The lode in the 65, west from the winze, sunk below the 55, is 18 in. wide, improving, worth 1 ton of ore per fathom. The stop above this level, and east of the winze, is worth 3 tons per fathom.

—G. R. Odgers, W. Bennett, Feb. 16: The lode in the 75 east is 2 ft. wide, worth 3½ tons of copper ore per fathom; it continues to look very promising for a course of ore; seeing this end is only 7 fms. behind the bunch of ore we now have in the 65. Increases the probabilities of finding a better lode here. The stop above this level is worth 1½ tons of copper ore per fathom. In the 65, west from the winze, we have to go west with a splendid improvement; lode worth 4 tons of good ore per fathom. From this place we shall break a good pile of ore. The stop above this level, and east from the winze, is worth 4 tons of copper ore per fathom. No other change.

EAST WHEAL LOVELL.—R. Quantrell, Feb. 15: The mine continues to look very well. We sold yesterday 14 tons 14 cwt. 3 qrs. 22 lbs. of tin, realising 1217*t.* 8s. the produce of a fortnight. The meeting will be on the 27th inst., when the usual dividend of 2*t.* per share will be declared, and a full report given.

EAST WHIRL SETON.—J. Vivian and Son, Henry Arthur, Feb. 16: Cartwright's Shaft: In the 23 west, and stopes above, the lode is worth 15*t.* per fm.

The stop in the back of the 24 west is worth 17*t.* per fathom. The stop in the back of the 27 east is worth 16*t.* per fathom. Bassett's shaft is now down 9½ fms.

below the 34, lode 3 feet wide, composed of spar and flookam. The flat-road shaft is now down 7½ fathoms below the 34; lode 5 feet wide, composed of quartz, munde, and flookam, with occasional rich stones of copper ore. In the 34 east we are cross-cutting north through the north part of the lode, from which there is a large quantity of water flowing.

FLORENCE AND TONKIN.—W. Verran, Feb. 16: In driving the 15 fathoms south on the lead lode good dispatch is being made; to the drivage will not only prove the lead lode further south, under the gossan seen at surface, but as we only carry a small portion of the lode we shall also intersect the south copper lode, which in the deep adit cross-cut, east of the winze, is communicating with the winze below the 82, which has given good ventilation throughout the bottom of the mine, and facilitated our future operations in stopping away the water we are raising ore; this level is an important point, both for lead and copper. In the 35 fm. level west we have an increase of water, which shows we are not far from the cross-course, which we are in daily expectation of cutting. We are breaking good work from the back of the deep adit, east of the winze lately sunk, and hope soon to be able to resume operations further west, below the adit, where we anticipate better results than have been at any time realised.

GAWFON COPPER.—G. Rose, G. Rose, Jun., Feb. 11: There is no change in the character of the ground in King's engine-shaft, sinking below the 95 during the past week. The rise gone up in the back of the 95 east, is communicated with the winze sunk below the 82, which has given good ventilation throughout the bottom of the mine, and facilitated our future operations in stopping away the water we are raising ore; this level is an important point, both for lead and copper. In the 35 fm. level west we have an increase of water, which shows we are not far from the cross-course, which we are in daily expectation of cutting. We are breaking good work from the back of the deep adit, east of the winze lately sunk, and hope soon to be able to resume operations further west, below the adit, where we anticipate better results than have been at any time realised.

GLASGOW CARADON CONSOLS.—W. Taylor, Feb. 14: Harvey's Lode: We

are pushing on the rise in the back of the 78 east, to communicate with the 65, the lode in which is worth 9*t.* per fathom. We hope to make this communication this month, which will lay open a good piece of ore ground. In the 52 east the lode is worth 12*t.* per fathom; the 45 east is worth 12*t.* per fathom; the 45 west is worth 5*t.* per fathom; the 35 west is worth 4*t.* per fathom; the rise in the back of this level is worth 10*t.* per fathom. The stopes on this lode vary in value from 8*t.* to 12*t.* per fathom, and the ground generally easy for working. In the 78 cross-cut south the ground continues very favourable, but we have not cut any other lode yet; we are pushing it on, as we may meet with an important discovery any day. No change of importance to notice in the tribute department. We have just sampled (computed) 226 tons of copper ore, which will be sold at Truro on the 23rd instant.

GORSEDD AND CELYN LEVEL.—Feb. 16: We are now clearing the adit level west of both shafts, and making very good progress; the accumulation of stuff is caused by the water rushing from the west, and carrying it along the adit level; we put aside for dressing any lead stuff met with. The tribute pitch to the adit, east of Coetla Gelynen looks well, and I expect much good from this part of the mine when the dry weather sets in. Waen vein at the 50 is looking kindly indeed. We have put about 6 tons of clean ore in the dressing-house, and are proceeding favourably in this department.

GREAT FRON FOWNOG.—William Wasley, Feb. 16: The new engine-shaft is now very nearly completed down to the bottom of the day level, and the men are making fair progress. The foundation for the 85-in. cylinder engine will be finished by this evening, and we shall get on with the building as fast as possible. We shall have eight masons at it. We have taken down the walls of the old engine-house in the adjoining field, and shall commence to-morrow to lay down a tramroad to run the stones down to the site of the new engine-house. The tributaries at No. 4 shaft are getting a fair quantity of ore.

GREAT HURTH.—W. Vipond, Feb. 13: In the end going north we are preparing to rise, where we have found the cross vein leaving the east and west vein we have just cut through. There is a little ore in the cross vein at this place, though we have done nothing on it since we found it; two men are working at this, and I will let them a bargain to rise in a day or two. The old vein going east is looking more promising, yielding 6 or 8 cwt. of ore per fathom; the cross vein is set to drive to two men, at 55s. per fathom; this end is yielding 8 cwt. of ore per fathom. The stop going south is worth 8 cwt. of ore per fathom, and we have only been able to cut about 3 ft. on the top part of the vein, the ore ground of which has yielded but very little, as this part of the pipe is poor at present. I do not think it has yielded more than about 2 tons, which is extra to what I advised you of my report. The vein appears to be undergoing a further change, as the ore ground appears to be dipping much faster, which I hope will alter the vein for the better. The rise in the back of the 41 has been put up about 4 ft. The air here was very bad during the time the water was up in the down-right, as it cut off all communications, and which affected the mine throughout. The character of the vein continues the same, mixed with spar, chert, and clay, but no ore. On John's lode, below the 26 fm. level, we have sunk a winze about 6 feet through a very strong lode, which contains occasional good stones of ore, and if it does not alter after 6 feet more sinking, I would suggest to offer it on tribute again.

GREAT RETTALLACK.—G. R. Odgers, J. Harris, Feb. 11: In the adit cross-cut south the rock is elvan, but towards the bottom of the level there is a patch of soft ground, indicating, we hope, that the south side is near.

GREAT RETTALLACK.—J. Harris, Feb. 15: In our report for last Saturday we stated we had met with a patch of soft ground in the bottom of the adit cross-cut, since then we have opened a little more upon it, and I am glad to tell you the ground has very much changed for the better for driving in, but it will take two or three days more for the men to square in the ground in the back of the level, which is harder than any ground we have before met with in the cross-cut, before they can do anything in the easier ground. I am strongly of the opinion that we are getting near the south side of the elvan. I hope after two or three days more we shall begin to make speed in our drivage again.

GREAT ROCK.—John Kemp,

of micaeous and red oxide of iron, yielding good work for tin at the value of 20/- per fathom. This lode has again been opened upon in the wheel-pit and 20/- per fathom. The lode has been taken off the water, where it is 6 and 8 ft. wide, and similar in character and value to that above described. The various samples assayed average much beyond what is found to pay working cost, and leave good profits. On this lode also a shaft has been sunk to the 40 ft. level, but in order to embrace the proper working of the side and parallel lodes I have commenced sinking an engine-shaft 50 fms. further west, for permanent use. Nos. 5 and 6 lodes have been opened upon about 5 fms. each, and although producing occasional good staves of tin I do not consider they (the lodes) have been sufficiently developed to enable me to form a correct opinion as to their ultimate value. The ground for the wheel-pit has been excavated, and the masonry nearly completed for a 60-ft. wheel; the lode to take the water from the same has been driven 107 fathoms, and in about a month the whole will be completed to receive the immense quantities of tinstuff now at surface. Extensive tramroads have been laid open, and offices, smith's shop, &c., have been erected. The weather is getting finer, and everything shall be pushed on for the development of the lodes herein mentioned.

NORTH CROFTY.—J. Vivian and Son, W. Thomas, Feb. 15: Having taken down the copper part of the lode in the 208, west of Petherick's shaft, we shall at once commence to cut through the tin part, and thus ascertain its true value. The tribute pitch under the 181, east of Praed's shaft, is worth 25/- per fathom. The cross-cut just under this pitch in the 196 will reach this lode in about a fortnight, and the cross-cut started from Praed's shaft will, probably, cut it in three weeks hence. No change elsewhere.

NORTH DOWNS.—J. Williams, Feb. 14: We have had very good speed in sinking the sump-wine during the past week, and the south lode spoken of in our former reports as fallen in with the main lode has now formed a junction, and very much improved, the lode producing some splendid rich yellow ore, worth for the length carried (10 ft.) 20/- per fathom. The stopes west of sump-wine is now looking quite so well, but still a good lode, worth 18/- per fathom. The lode in the 60, west of King's engine-shaft, being poor we have suspended operations in this direction for the present, and put the men to drive on the north lode parallel to the sump-wine previous to sinking the sump-wine below the 70; this end was very wet, but now entirely drained, fully indicating a porous lode before us; the lode, which was poor when commenced, is now producing some good ore, looking very promising. In the 40 fm. level cross-cut, west of King's shaft, towards the main lode, we have intersected one branch, containing mastic and a little copper ore, but not to value. Our intention is to push on this cross-cut until it reaches Pryor's lode, which produced immense quantities of ore on the eastern side of the cross-course; this we hope to accomplish in a few months. The rise in the back of the 70 is getting very wet; the lode is about 8 in. wide, producing mastic and copper ore, worth for the latter 4/- per fathom. In the 20 fm. level cross-cut, south from Bennett's shaft, no lode or branch has been met with during the past week. Notwithstanding our anxiety to drive the 85, we are unable to do so on account of the enormous quantity of water, however we hope to have removed the obstacle by placing a larger pole at the 30, and taking off water at this level.

NORTH POOL.—Feb. 16: Ballarat shaft is now 8 feet below the 52, where the lode is 2 feet wide, composed of quartz, white iron, blonde, and some good copper ore. In the 40 east the lode is 2 feet wide, composed principally of quartz and mastic, spotted with copper ore. We have a great increase of water in this end, but our powerful engine is working exceedingly well.

OLD GUNNISLAKE.—F. Phillips, Feb. 15: New Shaft: We are still sinking in the cross-course, and, therefore, cannot see much of the lode in the shaftway in the western end, where it is of the same character as reported on before, and I have taken some good quality tin from it during the last week. There is some very good stuff gone down in the bottom of the 10, east of the cross-course, and I hope to this will have improved when seen at a greater depth. We sunk 2 fathoms 1 ft. last month, although in the beginning part we had a very great deal of water to contend with; this is better now, and I hope our progress will be much better also this month.

PEDN-AN-DREVA UNITED.—Wm. Tregay, J. Thomas, Feb. 11: Sump: The water has continued very quick, rendering the sinking intermittent; the ground is favourable. The lode in the 140 west is worth 10/- per fathom. The stopes in the pitch in the back of this level produce 19 cwt. of black tin per cubic fathom; lode 10 ft. wide. In the 130 south some branches have been intersected containing a little tin, but not of any importance. The lode in the rise in the 120 north is worth 10/- per fathom. In the north cross-cut in the 100 east nothing of importance has been intersected since last report. Good progress is being made in rising in the 55 south, and we expect to communicate with the 47 shortly.—Street: In the 47 east the lode is worth 15/- per fathom. In the 47 west the lode is 20/- per fathom.—Cobblers': The lode in the 130 west is worth 8/- per fm. The lode in the end in the 120 north is worth 20/- per fathom. The lode in the 90 north produces occasional stones of tin, and lets out much water. In the 80 west the lode is worth 20/- per fathom; the 70 west, 18/-; the 69 east, 13/-; the 60 west, 20/-; the 55 east, 12/-; and the 55 west, 20/- per fathom. The lode in the 47 west produces stones of tin.—Carbozo's: The lode in the rise in the 20 is worth 8/- per fathom. The lode in the shaft in the 10 fm. level is worth 1/- per fathom. We have sold 14 tons 8 cwt. of arsenic, at 21, 38s. 4d. per ton, to English Arsenic Company. We have sold to day, at Carvedas, 10 tons 14 cwt., 1 qr. 6 lbs. of black tin, at 80/- 15s. per ton, realising 867l. 0s. 8d. No other changes of importance to communicate.

PENHALLES.—S. Bennetts, W. Higgins, Feb. 8: The following is our report on the various points in operation during the past quarter, and of the prospects in connection therewith. As yet at the 80 we have not succeeded in finding the principal lode, although small branch containing tin has been cut there. Some three weeks since at the 70 west of engine-shaft, we cut into a good leader of tin, worth 15/- to 20/- per fathom, and which still contains 8 of equal value. From its position and bearing in that end, it would seem as though the 80 fm. level cross-cut is not even yet driven far enough north to intersect it; this, however, will soon be ascertained more clearly by a short cross-cut now being driven at the 70 near the shaft. The stopes above this level, on the south part of the lode, is worth 6/- per fathom. The 60 west end has produced a little tinstuff, but not of much value. The 50 west has also produced some tin, but not very satisfactory. The stopes above this level, east of the cross-cut, has been through out the quarter worth 12/- per fathom, and continues equally productive. A cross-cut is now being driven south to intersect this lode east of the small cross-course near the western shaft. The stopes above the 45 are exhausted to the next gossan above. The stopes in the bottom of the 41, on the Pink lode, is worth 6/- per fathom, and that above the adit level, at the flat-roof shaft, has become poor and dis-continued, as there is nothing to speculate for here so very shallow. At the Pink Mine the 60, west of Glynn-shaft, has produced a small quantity of tinstuff, but not of much value. The 50, west of the same shaft, has been further extended 4½ fathoms, and the lode worth 8/- per fathom. The sinking of the shaft below the 30 has been resumed; the lode in this shaft is large, and yielding saving work. The 40, east of this shaft, is worth 5/- per fathom. At Sarah's shaft the 17 west has been extended 8 fathoms through a large lode worth 5/- per fathom; the stops above this level is worth 7/- per fm. The 14 east has been extended so as to intersect the cross-course; the last 2 fms. of this cross-course were worth 18/- per fathom; the lode is not yet cut out of it, but we expect it will be in the course of a fathom or two driving, and expect a good lode will be found there, as it made good on each side of the same cross-course at the 50. The stopes above the 14 is worth 7/- per fathom. The tribute pitches during the quarter have not proved quite so productive as in the previous quarter. The tail-work points, however, are just now looking more satisfactory, especially we refer to the 70, west of the engine-shaft; should this ground continue to open out as at present it will be of great importance to the mine. At the flat-roof shaft we drained the 30 by means of force pumps, so as to avoid a heavy expense attached to the pumping of the water to the 20. These necessary operations have been accomplished, pit-work, bobs, rods, &c., all fixed, and in the course of a few days the 30 and below will be drained by the engine, and a cross-cut commenced east of the shaft, to cut the Penhalles lode. Although this returns this quarter have not quite equalled the last, yet we think the next will do so.

PENHALLES WHEEL WOR.—W. H. Martin, Feb. 15: The shaftmen this week have made slow progress in sinking, in consequence of the hardness of the rock, and the ground being interminated with a great deal of spar and capel; the character of the lode is much the same as last advised. There is no alteration to notice in the 130 fm. level cross-cut.

PERRAN CONSOLS.—James Nance, Feb. 13: Flat-roof Shaft: The ground in the shaft is genial for tin, the lode is 2 ft. wide, and looking more promising, and yielding saving work. In the 30 fm. level, driving west, we have the slide in the end, it has heaved the lode a little to the south, but in a few feet further on it will again appear in the end, when we hope it will be settled ground, and of a promising character; also the stopes in the back of this level the lode is from 3 to 4 ft. wide, worth 5/- per fathom. In the 20 fm. level, driving east of this level is set on tribute, and others will follow as soon as a rise can be put through to the 10 fm. level for ventilation. In the 20 fm. level driving west, the portion of lode taken down is worth from 2/- to 3/- per fathom. In No. 2 stopes the lode is worth 8/- per fathom. The western shaftmen are still engaged in clearing and securing the break in the adit level.

PRINCE OF WALES.—J. and W. Gifford, Feb. 14: The 90 cross-cut south is progressing favourably, and letting out much water. In the 77 east the lodes is 2 ft. wide, yielding good stones of copper ore—a promising end. We hope to set a value on it on Thursday next. In the 77 west the north part of the lode, on which we are driving, is 1½ ft. wide, and is poor. In the 77 cross-cut no change. In the 65 east the lode is 2 ft. wide, principally capel. In the 55 cross-cut north the ground is hard and spare for driving. Stopes throughout the same rise above the 23, to communicate with the 12 for ventilation, the lode is worth 3/- 10s. per fm.; rising by three men, at 3/- per fathom. The lode in No. 1 stopes in back of the 23, is worth 8/- per fm.; set to eight men, at 2/- 10s. per fathom. The lode in No. 2 stopes, in back of the 23, is worth 10/- per fm.; set to six men, at 3/- 10s. per fm. The lode in No. 3 stopes, in back of the 23, is worth 7/- per fm.; set to three men, at 3/- per fm. At the last meeting we expected to have had the largest returns from the bottom of the 23, but in consequence of the surface water we have had very little; the stopes, however, in the back have produced more tin than expected. We have not been able to dress all the tin that has been stamped, on account of the frost. We have sold 6 tons 13 cwt. 3 qrs. 13 lbs., and shall have on Friday next 3½ tons more, which would have been sold before the meeting had the weather been favourable for dressing. We believe the returns for the next three months will be 12 tons of tin, taking the stopes as at present, and the weather more favourable for cleaning up what we have on the floors. We should recommend the driving of the 25 west by a full pare of men, and as soon as the dry season sets in to sink a shaft on the lode

from surface for an engine-shaft, and stop the back of the 25 as at present. In developing this part of the sett separately from the old mine we calculate the water charge will be easy, and good chance for meeting with a good mine, as there are more lodes passing through this part of the sett, and but little done on them. The number of persons employed underground and at surface is 72.

REDMOOR.—F. Bennett's, Feb. 16: The lode in the 25 west is producing mastic and a little tin, and has a very kindly appearance for improvement. There is no change to notice in the rise or stopes since last reported.

REPERRY.—Thos. Parkyn, Richard Reynolds, Feb. 15: In the 25 end east there is no change to note. The lode in the rise in the back of this level has improved since last reported on. The ground is a little easier, and the men are making fair progress. In the cross-cut, south of shaft, we have cut through a course of spar 3 ft. wide, but do not think this to be the lode, only a course of spar in the country. In the present end there is a stream of water coming out of the breas' of the end, and we think the lode is still further south. In the 15 the lode in the stopes, east of shaft, is 2 ft. wide, containing good work for tin, the best work that we have seen for some time past. The moment we cut the south lode you shall be advised.

RHYDTALOG.—J. Dunkin, Feb. 16: We are now making good progress in sinking the engine-shaft on the main lode, the frost and snow having almost entirely disappeared: I have no change to report in the character of the lode. The 15 driving west on the new lode, continues favourable for progress; we are leaving profitable stoping ground above and below this level; from the present appearance I expect a further improvement. I have commenced to open the shaft on this lode, and will push it on as fast as possible, for the opening up of this lode.

ROMAN GRAVELS.—Arthur Waters, Feb. 16: The engine-shaft below the 80 continues to go down under the most favourable circumstances, the character of the country rocks being everything that we could desire. The 80 north is not yet forth to the ore ground, but the indications show that we are in close proximity to it. The 80 south is laying open a lode 2½ ft. wide, composed of carbonate of lime and rich lead-stuff, the latter in greater quantities than formerly.

As soon as the winze in the 65 is communicated to this level we purpose driving a cross-cut west to Roman vein. At the 65, on side lode, we are driving north-east, and have a good branch of ore, worth 2 tons per fathom. The lode in Ridge's stopes, behind said end, is worth 3 tons of lead ore per fathom. In the 65 south of No. 2 cross-cut, on what is called Roman vein, the lode is 5 ft. wide, worth 7 tons of lead ore per fathom, and south of cross-cut the lode is 4 ft. wide, yielding 9 tons per fathom, and improving as the end approaches the junction of the first north lode. The ore ground now laid open by driving at this level is 25 fms. long, and it does not require a very wise man to see that we are, even at 7 tons and 9 tons per fathom, only skimming over the top of a very extensive and rich course of ore. The winze coming down into this ground from the 50 will shortly be through, when we shall be able to sink winzes below the 65 in great courses of ore. The men in Beaumont's winze are now driving east from the bottom, to cut the lode in the 65. Corfield's winze is now being sunk in the hanging side of the great lode, instead of directly in it. It caused some delay to arrive at our present position, but we are sure that by dressing the lode and taking it down occasionally we shall get through the ground with more speed than formerly. The lode in the present bottom of winze is quite 5 ft. wide, and is as like the ladder winze in the 65 coming south as can be. I estimate the value of the lode in the rich bottom and ends of the winze at 9 tons per fathom. We are of opinion that this winze is really going down in the centre of a run of ore that will be found at the 65 to extend south to the shale, and north, at any rate, as far as the ladder winze, in which case it would be the largest deposit of ore in Shropshire. We are going into matters connected with the new shaft, and have fixed upon sites for new engine, crusher, and dressing-floors. I have delivered 60 tons of lead to Mr. Peter Glover, and shall send of the 20 tons to Mr. Adam Eyston to-morrow. Our sampling for February will be 100 tons.

ROSEWALL, HILL AND RANSOM UNITED.—J. Daniel, William Buglehole, Feb. 15: Since our last report we have cut the main part of the lode in the 100 fm. level cross-cut north, which is 10 in. wide, producing good stones of tin. We purpose to drive west on its course; by doing this we expect the lode will present an improved appearance, as the two parts will fall together in about 2 fathoms drivage. Other parts of the mine are without any particular change to notice since our last report.

SOUTH CONDURROW.—J. Vivian and Son, Feb. 16: There is very little alteration in the various parts of the mine, but we may mention that the 71, west of King's shaft, has again improved, and is now worth over 150/- per fathom. We sold yesterday to Messrs. Williams, Harvey, and Co., 10 tons 8 cwt. 3 qrs. 7 lbs. of black tin, at 77/- 5s. per ton, amounting to 805l. 10s. 9d., and shall sell another, and larger, parcel before the meeting.

SOUTH DARREN.—J. Bodony, W. H. Bodony, Feb. 13: The weather is now favourable for surface work, and since the frost broke up good progress has been made in forking the water, which is now 6 fms. below the 70, and we hope to have the water out from the bottom of the mine by the end of the week, and begin to drive the 80 west, which shall be pushed on with all possible dispatch by a full pare of men. The lode in the 70 end west is 2 ft. wide, and presenting a very good appearance, and producing good stones of lead and copper ore, worth 10/- per fathom. The stopes over the back of this level are of the same value as last reported. The ground in the winze sinking below the 70 is favourable for progress. The lode in the 60 west is much the same in appearance 6 and value as last reported, worth 10/- per fathom, a very promising lode. No other change of importance to notice. The dressing is being pushed on as fast as we possibly can, and shall sample our usual quantity of lead ore on Wednesday next.

SOUTH HERDSFOOT.—W. Goldsworthy, Feb. 16: The ground in the cross-course continues favourable for driving, and the cross-course increases in size, showing spots of mastic and copper. In the north end the branch continues small, but is showing signs of improvement; the water is very much increased, which has rather impeded our progress.

SOUTH MERBLY.—Feb. 16: The only change to report here since my last is in the 80 yard level south, where the lode is increasing in size and improving in character. Its present width being 22 in.

SOUTH WARD.—Thomas Foote, Feb. 11: A messenger came this morning to say some more of the lode had been taken down in the 25 fm. level north, and still improving; 15 kibbles of the stuff had been drawn to surface—fine work.

STOUR.—T. Stour, Feb. 16: The lode in the shaft, yet good indications. There are great enquiries for shares in the Tiverton district and other places. I shall be at the mine on Monday, and will write to you again as soon as we take down any more of the lode.

SOUTH WARD.—Thomas Foote, Feb. 13: I am pleased to say the lode in the 70 fm. level north is worth 6/- per fathom, and that the stops above are as when last reported.

TAWYR ALLT.—W. Johns, W. T. Harris, Feb. 14: The sinking the engine-shaft below the 24 fm. level is going on rapidly, and should this ground continue we shall quickly reach the next level. In the lode in the 24 fm. level west, and by the indications showing, we are looking forward to a speedy improvement. The stopes in the back of this level is worth 20/- per fathom. A winze below the 14 east is down to water; we have placed the men to cut through the lode, which contains more barytes than hitherto seen. In the 14 fm. level west we expect to do on Friday next. I shall send you some of the ore by train to-morrow. The shaft is down near 12 fms., and not any lode, or any thing like it y.t. I am pleased to say I will write you again as soon as we take down any more of the lode.

TAMAR VALLEY.—John Goldsworthy, Feb. 16: In the 27, south of Weston's engine-shaft, the driving is by the side of the lode. The stratum is of a favourable description for the production of mineral. I look forward to see a good lode in this end as the driving advances towards the workings below the 27. Every effort is being made to come under these workings in as short a time as possible. In the winze sinking below the 27 south the lode is 3 ft. wide, exceeding

promising, composed of horn, fluor-spar, and silver-lead ore, worth for the latter at least 12/- per fm.; this is a most important feature, and being in advance of the 37 over 50 fms., we have fair reasons to expect a long run of productive ore ground in the 37. Our prospects are indeed good, and never anything so good as now. The tribute department is without change to notice. Every operation is being pushed on as fast as possible. The machinery is working satisfactorily.

TANKERVILLE.—Arthur Waters, Feb. 16: The mine is without any change to notice since my report of last week. We have delivered the 75 tons of ore to Messrs. Sims, Wiliams, and Co., and herewith you have certificate of weight of same. We shall sample 75 tons to-morrow. We have this week increased our staff on the dressing-floors, for the purpose of getting in larger quantities of ore, to make up for past delays, &c. The masons are getting on with the engine and crusher houses.

TAN-YR-ALLT.—W. Johns, W. T. Harris, Feb. 14: The sinking the engine-shaft below the 24 fm. level is going on rapidly, and should this ground continue we shall quickly reach the next level. In the lode in the 24 fm. level west, and by the indications showing, we are looking forward to a speedy improvement. The stopes in the back of this level is worth 20/- per fathom. A winze below the 14 east is down to water; we have placed the men to cut through the lode, which contains more barytes than hitherto seen. In the 14 fm. level west we expect to do on Friday next. I shall send you some of the ore by train to-morrow. The shaft is down near 12 fms., and not any lode, or any thing like it y.t. I am pleased to say I will write you again as soon as we take down any more of the lode.

TERRAS (Tin).—M. Rickard, Feb. 15: The stopes in the back of the 20 fm. level, on Edward's lode, has much improved since last report, and is now producing excellent work for tin. The 10 fm. level east, on Edward's lode at this level is set on tribute, and others will follow as soon as a rise can be put through to the 10 fm. level for ventilation. In the 20 fm. level driving west, the portion of lode taken down is worth from 2/- to 3/- per fathom. In No. 2 stopes the lode is worth 8/- per fathom. The western shaftmen are still engaged in clearing and securing the break in the adit level.

THIRLWELL.—F. Bennett's, Feb. 15: The silver lode maintains its value, 60/- per fathom. Two bags of moderate quality have been broken to-day. Copper Lode: In the 77 east the lode is 2 ft. wide, good stones of copper ore, value 1 ton, or 6/- per fathom, a very promising end. No change in any other part.

PRINCESS OF WALES.—Thomas Foote, G. Rickard, Feb. 15: There is no change calling for any remark in the underground operations this week. The engine and pitwork are in good condition, and working well.

REDMOOR.—F. Bennett's, Feb. 15: Since the last general meeting there has been but little work done below the 25, in consequence of surface water coming down. The footway shaft is sunk 5 fms. 1 ft. below the 25, and suspended, as the water is quick, in a good paying lode when laid dry. The 25 is driven west of the cross-cut 55 fms.; the lode has been productive until the last 5 fms., but we believe from the character of the lode, and the ground by the side of it, we shall have an improvement shortly; driving by six men, at 4/- per fm. In the 25, to communicate with the 12 for ventilation, the lode is worth 3/- 10s. per fm.; rising by three men, at 3/- per fathom. The lode in No. 1 stopes in back of the 25, is worth 8/- per fm.; set to eight men, at 2/- 10s. per fathom. The lode in No. 2 stopes, in back of the 25, is worth 10/- per fm.; set to six men, at 3/- 10s. per fm. The lode in No. 3 stopes, in back of the 25, is worth 7/- per fm.; set to three men, at 3/- per fm. At the last meeting we expected to have had the largest returns from the bottom of the 25, but in consequence of the surface water we have had very little; the stopes, however, in the back have produced more tin than expected. We have not been able to dress all the tin that has been stamped, on account of the frost. We have sold 6 tons 13 cwt. 3 qrs. 13 lbs., and shall have on Friday next 3½ tons more, which would have been sold before the meeting had the weather been favourable for dressing. We believe the returns for the next three months will be 12 tons of tin, taking the stopes as at present, and the weather more favourable for cleaning up what we have on the floors. We should recommend the driving of the 2

* With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Original Correspondence: Birmingham and the Black Country, No. IX.; Ironworks of Yorkshire; Collieries in North Durham, their Workings and Machinery, No. IX.; Boards of Conciliation between Employers and Employed; Industrial and Technical Education (J. Mill); New Steam Stamper (W. Syncock); Quicksilver Mines of Almaden, Spain (H. Sewell); Mining in Nevada (J. E. Bowe); Mining in Nevada, and in England (R. Knapp); Mining in Flintshire (F. Francis); Mining as a Legitimate Investment (T. Sparge); Roman Gravels Mine (A. Waters); Carn Brea Mines, and their Management—Explosions of Domestic Boilers (illustrated)—Octagonal Smelting Furnace—On the Archimedean Screw for Lifting Water—Compressed Air as a Motive-Power—Meetings of the Mining Association of Great Britain, the Truck Commission, the Holyhead Lead Mining Company, and English and Australian Copper Company—Mines Regulation and Inspection—Silver Processes in the Pacific States—Copper Trade of South America—Mining in India—Foreign Mining and Metallurgy—Foreign Mines Reports—Patent Matters, &c.

GNOOL COLLIERY.—It is understood that it has been arranged to re-open the Gnool Colliery, at Neath, which has been closed for upwards of sixty years, owing to the Gnool estate having during that time been used for residential purposes solely, until a short time ago, when a lease of the minerals was granted to Mr. Parsons, of Neath, and others. This has resulted in a limited company being formed by Messrs. Fearon, Clabon, and Fearon, and Messrs. Shelford and Robinson, of London. The colliery is very favourably situated on the outskirts of the town, which will give it the control of the local trade. Its proximity to the South Wales main line and to the ports of Briton Ferry, Swansea, &c., by rail as well as by river and canal, afford great facilities for shipment. These com n a augur well for the success of the colliery.

MINING PROGRESS.—Two mines, whose successive degrees of advance have been frequently recorded, have just made a further step forward of prosperous import to their shareholders. North Levant will declare its fifth half-yearly dividend next week, paying 15s. per share. The scale of ascent has been from 5s. to 10s. half-yearly, and now to 15s.; and this style of progress is one of the best tokens of permanency. Polbreen has started its stamping-engine, which is doing its work well, and the dressing-floors are sufficiently ready for the ore, though not entirely completed. The March account-day at Polbreen will, we learn, disclose a condition of the mine highly creditable to the managers.

DOLCOATH.—At the meeting, on Monday, a dividend of 4296*l.* (3*l.* per share) was declared for the two months. The last dividend on copper was paid in May, 1853; the first dividend on tin was paid in April, 1853. From 1853 to 1870 (both years inclusive)—tin ores have been sold to the value of 951,611*l.* 5*s.* 4*d.*; copper, 41,558*l.* 5*s.* 9*d.*; arsenic, 3682*l.* 6*s.* 2*d.*; dues paid, 43,044*l.* 17*s.* 5*d.*; and profits made, 214,125*l.* 16*s.* 9*d.*

GREAT WHEAL VOR.—Fair progress is being made in clearing the debris from Ivey's shaft, and it is hoped that the whole will be removed within the time estimated. The lode in Edwards's shaft is as rich as last reported; it is larger, well defined, and extends the whole length of the shaft from west to east, showing every indication of its connection with the fine lode in the winze 10 fathoms east of the shaft, and apparently confirming the official reports so frequently laid before the shareholders at their general meetings, that these discoveries are opening out a course of ore where the junction of the lodes has long been looked for.

NANT-Y-MWYN (South Wales).—This property has been worked for two centuries, with a success unprecedented in the annals of lead mining. It is now being most successfully worked by the Messrs. Williams and Son, of Scorrier, Cornwall, who have had enormous profits every year from the undertaking. The adjoining sett, which has been found by minute examination to contain all the lodes of its rich neighbour, is about to be worked, and a company is in course of being prepared for thoroughly developing the lodes opened on, and from which good quantities of lead have been obtained.

The GREAT WEST CHIVERTON COMPANY have received an excellent report from their managing agent, Capt. J. Nancarrow, of Camborne, which is inserted among the "Mining Correspondence."

EAST LLANGYNOG.—A further improvement has taken place in this mine. The agent reported on the 10th inst. that in sinking a winze in the 11 fm. level, on the south lode, he had cut a body of solid lead, 8 in. thick, and expected further improvement. This only tends to prove the correctness of the opinions expressed when this property was first introduced to the public, about six weeks ago. The results attending the development of this mine appear to be amongst the most extraordinary on record. The company has been registered only about six weeks, and over 50 tons of ore is broken and being prepared for market; and now another lode yielding 8 in. of solid lead, with the prospect of further improvement.

TOLCARNE.—The success which is attending the development of the western part of South Condurrow Mine has induced a few gentlemen of position to secure this sett, which will shortly appear before the public, and there is little doubt but that a degree of success equal to, if not to surpass, South Condurrow will be obtained in the development of this property.

PERKINS BEACH.—A telegram (Feb. 17) says:—"Last night a capital pipe was reached in pump-sump, with solid ore 14 inches wide, besides loose lumps."

CAMBORNE CONSOLS AND WHEAL GONS.—This property is situated immediately between Dolcoath and Camborne Vein Mines, and is known to contain immense bodies of ore. This sett is very valuable, and a company is about to be formed for working it. It will, it is fully expected, prove to be one of the greatest successes of the present year. The position of the mine, its rich surface, the number of lodes, and the character of the stratum, as well as the more important feature that the mine is drained to the bottom by Dolcoath, stamps this undertaking as a speculation of no ordinary character.

CWM YRON.—"We have cut a good lode in the 12 fm. level—the prospects the best we have seen in the mine." This was the telegram received from the manager, on Thursday, which was followed by a letter, in which the manager states that he believes they are on the top of a splendid bunch of ore—that is, where they are stripping down the part of the lode that was left standing by the side of the level. The lode altogether is fully 12 ft. wide, and half the width is good ore stuff. The importance of this discovery cannot be overrated.

TERRAS (Tin).—A report from Captain Crocker, who has been inspecting this mine, appears in another part of this day's Journal. Another lode has been discovered rich for tin. So much has been published respecting this mine lately that we really hope proprietors and the public will allow us a little space for other prominent mines, and have a little patience with the captains and managers to make their boasting true. We shall, therefore, decline publishing any letters on the Terras Tin Mine for the time being. When sales take place we shall be glad to notice them—the public will be able to judge them who are right.

WEST ESGAIR-LLE.—In reference to the purchase of extra machinery for the fuller development of this mine, Capt. Kemp writes (Feb. 13):—"I am glad that you have determined to put up more machinery. I feel confident that large deposits of lead will be found there, for such a strong lode you cannot see elsewhere in Cardiganshire, and if the immense backs of blende in this mine are not the forerunners of extensive lead deposits I shall forever count the most probable indications as valueless."

TAQUARIL.—A telegram has been received in anticipation of the mail due in London on Monday. It states that the produce for December amounts to 2138 oits. As the last official report informed the shareholders that the gold cleaned up to Dec. 28 was 1200 oits, it is inferred that the produce for the remainder of the month (three days) must have been equal to 300 oits per day; and as the telegram also states that "better produce is expected for January," it seems more than probable that, notwithstanding adverse market operations, Taquaril will prove fully equal in productiveness to every ex-

pectation. It is said that advices have been received from trustworthy parties (who have just acquired a large interest in the company) indicating the realisation of much more favourable results than yet announced in the official reports.

GREAT DISCOVERY OF IRON ORE IN CORNWALL.—One of the greatest discoveries of iron ore ever made in Cornwall has just been made in St. Keverne. The lode is 9 feet wide, close to the surface (red hematite), and is situated in a high hill. At least 50 fathoms backs can be had, and the ore can be put on board ship for 6*d.* per ton, the mine being only 300 yards from the port, where any quantity can be shipped all the year round. The discovery was made by Capt. Thomas Parkyn, of Roche.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, FEB. 17, 1871.

COPPER.	£ s. d.	£ s. d.	IRON.	Per ton.
Best selected	70	0	Bars Welsh, in London	7 5 0
Tough cake and tile	73	10	0	70 0
Sheathing & sheets	75	0	75 0	75 0
Bolts	77	0	Nail rods	7 5 0
Bottoms	77	0	Staffd. in London	7 12 6
Old	65	0	7 12 6	7 15 0
Burra Burra	75	0	8 0	8 0
Wire	0	10 0	8 2	8 6
Tubes	0	10 0	Sheets, single	9 10 0
			Pig No. 1, in Wales	3 15 0
			Refined metal, ditto	4 0 0
			Bars, common ditto	6 5 0
			Do, mchd. Tyneor Tres	6 10 0
			Do, railway, in Wales	6 2 6
			Do, Swed. in London	None
			To arrive	10 2 6
			Pig, No. 1, in Clyde	2 12 0
			Do, f.o.b. Tyneor Tres	2 9 6
			Do, Nos. 3, 4, f.o.b. do.	2 6 2
			Railway chairs	5 17 0
			" spikes	11 0
			Indian Charcoal Pigs, in London, p. ton	6 5 0
			STEEL.	Per ton.
			Swed., in kgs (rolled)	12 10 0
			(hammered)	13 0 0
			Ditto, in faggots	15 0 0
			English, spring	17 0 0
			LEAD.	Per ton.
			English Pig, com.	18 0 0
			Ditto, LB.	2 6 0
			Ditto, WB.	19 5 0
			Ditto, sheet	18 5 0
			Ditto, red lead	20 10 0
			Ditto, white	28 0 30 0
			Ditto, patent shot	21 0 0
			Ditto, at works	13 0 0
			Spanish	17 10 0
			At the works, 1 <i>s.</i> to 1 <i>s.</i> 6 <i>d.</i> per box less.	
			Terne-plates 2 <i>s.</i> per box below tin-plates of similar brand.	

TIN-PLATES.*	Per box.	STEEL.	Per ton.
IC Charcoal, 1st qua.	1 6 6 1 8 6	Swed., in kgs (rolled)	12 10 0
IX Ditto, 1st qua.	1 12 6 1 14 6	Ditto, (hammered)	13 0 0
IX Ditto, 2d quality.	1 5 6 1 6 6	Ditto, in faggots	15 0 0
IX Ditto, 2d quality.	1 11 6 1 12 6	Ditto, sheet	18 5 0
IC Coke	1 2 6 1 4 6	Ditto, red lead	20 10 0
IX Ditto	1 8 6 1 10 0	Ditto, white	28 0 30 0
Canadaplates, p.ton.	13 10 0 14 10 0	Ditto, patent shot	21 0 0
		Ditto, at works	13 0 0
		Spanish	17 10 0

* At the works, 1*s.* to 1*s.* 6*d.* per box less.

REMARKS.—During the past week our markets have rather lacked animation, and the amount of business transacted has, consequently, been limited. Indications of a further slight improvement have not been wanting in copper, lead, and zinc. In other descriptions prices have been almost stationary. The Metal Market is in a particularly sound and healthy condition, not being buoyed up by illegitimate speculation, but, on the other hand, sustained by pure bona fide business. The quietness prevailing doubtless, in a great measure, arises from the fact of the great political questions agitating Europe yet remaining in abeyance. As soon as ever these are disposed of confidence will be restored, and the markets will probably assume greater activity, especially as regards the export branch. The home trade continues satisfactory, and imparts much stability to current quotations. No alteration having been announced in the Bank rate, symptoms of uneasiness in prospect of a tightness in money have passed away.

COPPER.—From private telegrams we gather that charters from Chilli during the first fortnight in January amounted to 1400 tons only. This continued succession of light charters cannot fail to exercise a most beneficial effect upon prices on this side. Holders participating in these views exhibit less inclination to make sales, except at rising prices, and buyers have, consequently, been compelled to pay full rates to satisfy their requirements. Ores and regulus have been well maintained at 13*s.* 3*d.* Urmeneta brand is reported to have sold at 65*l.* 10*s.* 6*d.* and "J. Edwards" has changed hands at 65*l.* 5*s.* The market closes very strong, with a further upward tendency in prices for this and other kinds of copper. Offers are stated to have been made to the smelters of 73*l.* 15*s.* for 4*ft.* by 4*ft.* sheets, which have been declined. Possibly 74*l.* might be accepted, but 75*l.* is now more generally quoted. While smelters can make sales of strong copper at 76*l.* and 77*l.*, they are rendered comparatively indifferent to the sale of 4*ft.* by 4*ft.* sheets, unless at improving prices. There will be no sale of ore at Swansea on the 28th inst. Sales of tough have been made for Birmingham at 75*l.* 10*s.* and 7*d.* It would be difficult to secure established brands below the latter figure. In Yellow Metal no change to report, sellers keeping firm at previous quotations.

IRON.—We have little or no change to report in the position of this metal since last week. The ironmasters are better supplied with orders for rails than for most other kinds of iron. Welsh bars have been in rather better request, and the demand for this description seems likely to improve. Sellers for delivery out of stock in London have raised their price to 7*l.* 5*s.*, but purchases have been effected for forward delivery at a shade under this. In a short time, probably, 7*l.* 5*s.* will become the general quotation. Staffordshire iron continues very quiet, but no further reduction upon last week's prices has been submitted to. Swedish iron is very firm. There is none to be had in our market, and owing to the prolonged frost no supplies from Sweden can be expected until late in the spring. Sellers anticipate higher prices, and forward contracts will not be accepted unless at full rates. Advices from the East are generally favourable as regards this metal, but merchants are as yet unwilling to bid in advance of current quotations. Scotch pigs have not supported the full rise announced in last week's Journal, the price having fallen about 6*d.* per ton. At the same time the shipments are favourable, showing an increase of 2699 tons during the week ending Feb. 11, compared with a similar period last year. Advices from New York are less favourable, the market there being very quiet; prices are a little easier, and buyers are only just supplying their immediate requirements. Scotch pigs in the Clyde 5*s.* 10*s.* cash, 5*s.* 1*d.* one month. No. 1, Gartsherrle, 6*s.* 6*d.*; No. 1, Calder, 5*s.*

LEAD.—A steadier market. Less eagerness to realise on the part of sellers. Orders for soft pig limited below 18*l.* declined. The general aspect of the market tending towards higher prices. The accounts from America state an improvement in demand, which has imparted strength to our market.

SPELTER.—The chief feature that has transpired during the week has been the announcement of the Vieille Montagne Company of a rise of 2*l.* in their quotation for zinc, owing to the improvement anticipated upon the opening of communications with Paris, as it is expected that large quantities will be required for repairs, &c. Belgian spelter is quoted at 17*l.* 10*s.* for arrival. Hard, 14*l.* nominal.

TIN.—The total absence of speculation for a rise may be considered rather a favourable feature, inasmuch as prices being fairly maintained without this element an assurance of the stability of the market is thereby, in a great measure, guaranteed. The quotations from Holland for Banca vary but slightly from those of last week, 7*l.* 5*s.* to 7*l.* 10*s.* being still the price quoted. A few transactions in Straits have occurred, at prices varying from 13*l.* to 13*l.* 10*s.*

TIN-PLATES.—The market remains unaltered, and does not present any feature calling for particular comment.

QUICKSILVER.—Fixed price remains unchanged, but second-hand parcels are to be met with at a reduction of about 10*s.* to 15*s.* per bottle; even at this reduction buyers are unwilling to purchase.

THE IRON TRADE.—(Griffiths' Weekly Report).—We have no large contracts to report in rails or any other kinds this week. Merchants still exercise all the caution perceptible on the market for week's past in closing for shipping orders, which they might execute if better satisfied with regard to the great event now under the consideration of the Chamber at Bordeaux. The general opinion in the City is that we shall have peace on the Continent immediately, and we believe the same feeling to exist in Paris and Berlin. The German and French loans improved considerably yesterday, which circumstance points to the same happy conclusion of the war. The iron market, however, like cotton and tallow, is one of expectancy, sellers being as unwilling to go into large contracts as buyers; at the same time it is a noticeable fact that enquiries are numerous, and the demand is in the hands of the merchants to commence large quantities when they are satisfied that we are on the certain road to peace.—Corribill, London, Feb. 18.

COPPER TRADE.—Messrs. Pitcairn-Campbell and Co. (Liverpool)—The scarcity of furnace material has forced consumers to turn their attention to Chilli bars, and a large business has been done since our last, at an advance of 10*s.* to 20*s.* per ton. The market closes very firm, and holders are still further raising their asking prices. Quotations are 65*l.* to 65*l.* 10*s.* for Chilli bars, 13*s.* 3*d.* for good ore and regulus, 70*s.* 10*s.* for Lota, and 72*l.* for Urmeneta ingots, 14*s.* 9*d.* for Corocoro Barilla. Business transacted during the fortnight comprises on the spot here 1494 tons bars at 64*l.* 10*s.* to 65*l.* 10*s.*, 148 tons ingots at 70*l.* to 72*l.* per ton, 136 tons regulus at 13*s.* 3*d.*, and 60 tons barilla at 14*s.* 9*d.* per unit. To

arrive here 150 tons bars at 65*l.* 10*s.* per ton. At Swansea 75 tons bars at 65*l.* 15*s.* at 13*s.* 3*d.* per unit, and 100 tons bars at 64*l.* 15*s.* to 65*l.* per ton. At Swansea

hardt, 15*l* to 16*l*; Eclipse, 3*l* to 3*l* prem.; Frontino, 3*l* to 4*l*; General Brazilian, par to 4*l* prem.; Pacific, 1*l* to 1*l*; Port Phillip, 1*l* to 1*l*; St. John del Rey, 22 to 23; Sweetland, 4*l*-16*l* to 4*l*-3*l*; Taquaril, 1*l* to 1*l* premium.

IRISH MINE SHARE MARKET.—We may consider that the price of our mining shares have been well supported, if we make allowance for the suddenness of the recent great rise of the Connoree shares, from a nominal quotation of 3*s*. 6*d*. and 4*s*, to 7*s*. 6*d*. and 7*s*. 9*d*. per share, a total advance of nearly 100 per cent. in less than a month. Now, however, they are rather weak at 6*s*. 6*d*. buyers offering only 6*s*. 3*d*. General Mining Company for Ireland shares have improved from 12*s*. 6*d*. to 15*s*. sellers; buyers stiff at the former price. Mining Company of Ireland continues steady at 8*s*. 2*d*. and Wicklow Copper at 8*s*. to 8*s*. 5*d*. both being in demand at 8*s*. per share. Killaloe Slate Quarry shares, lately on sale at 17*s*. 6*d*. are now enquired for at 20*s*. per share, with sellers at 21*s*. Cape Coppers, which rose from 15*s*. 13*s*. 9*d*. to 17*s*. 5*d*. have just receded 12*s*. 6*d*. leaving off on sale at 16*s*. 12*s*. 6*d*. On the whole, the market enjoys a healthy tone, and a fair average market value for all mining shares may soon be expected.

The FURZE HILL TIN MINING COMPANY, with a capital of 12,000*l*. in shares of 1*l*. each, has been formed to work the Furze Hill Wood Mine, in Walkhampton and Buckland Monachorum, the lodes in which have been partially explored, and which but for the depression of the price of tin in 1866 would ere this have been yielding large profits. The sets are about 600 fms. in length on the course of the lodes, and are held for 21 years from June, 1870. There is no money to be paid in cash, the promoters having such thorough confidence in the mine that they accept 6000 shares as consideration for the transfer of the property and plant. It is believed that not more than 3000*l*. will be required to put the mine in a paying position; and as large number of shares have been taken by those residing in the neighbourhood, who have the best possible means of judging of the value of the property, it would seem to offer great inducements to capitalists. When the mine was suspended Captain Dodge, the agent, wrote a full report on the various parts of the mine, concluding with the statement that the channel of ground is everything that could be desired, and that if the mine were worked on a large scale it would make a lasting and profitable one. The price of tin being now nearly double what it was when the report was written, it will be understood that the prospects of profits have increased in proportion. Capts. Gregory and Hoskin, of Drake Walls Mines, write that increased stamping-power, will admit of much larger returns of tin being made, and give good profits. The late company made a great outlay in sinking shafts, driving and securing the various levels and adits, together with the necessary dressing-floors, burning-house, smith's and carpenter's shops, wheel-pit, water-courses, roads, &c., the whole of which are now in first-class condition, and available for the present company. They believe that with a small outlay the mine will be placed in a profitable position. The prospectus will be found in another column.

The AMARANTH PAPER STAINING COMPANY, with a capital of 30,000*l*. in shares of 1*l*. each, has been formed for developing a patent for waterproof and washable paper, which can be easily cleansed with soap and water. The patentee takes 85 per cent. of the purchase money in shares of the company, and it is estimated that not more than 5000*l*. will be required to commence operations. The machinery and appliances required are stated to be of the most simple and inexpensive character.

At the Phoenix Mine meeting, on Tuesday (Mr. E. J. Treffry, D.C.L., in the chair), the accounts for the four months ending November, showed a credit balance of 4147*l*. 7*s*. 11*d*. A dividend of 3500*l*. (7*s*. per share) was declared, and 647*l*. 7*s*. 11*d*. carried to the credit of the next account.

At Botallack Mine quarterly meeting, on Wednesday, a dividend of 5*s*. per share was declared, making a total dividend of 1*l*. 0*l*. on the 300 shares into which the mine is divided. The prospects of the mine are much the same as they have been for some time past.

At Dolcoath Mine meeting, on Monday, the accounts for November and December showed a profit of 4709*l*. 1*s*. 3*d*. A dividend of 4296*l*. (3*s*. per share) was declared, and 850*l*. 1*s*. 4*d*. carried forward. [The agents' report will be found amongst the Mining Correspondence.]

At West Wheal Seton meeting, on Tuesday, the accounts for November and December showed a credit balance of 2039*l*. 7*s*. The profit on the two months' working was 784*l*. 1*s*. 7*d*. A dividend of 1000*l*. (2*s*. 10*d*. per share) was declared, and 1039*l*. 7*s*. carried to the credit of next account. A month's salary was voted to the agents, in consideration of th^t being the 100th consecutive dividend. The ore sold has realised 622,724*l*. ; the lord has received in dues 41,473*l*. ; there has been a net profit of 205,400*l*. and 1039*l*. 7*s*. i.e. now at the lodes. The dividends paid have amounted to 224,400*l*. During the years in which the larger dividends were made the standard for copper ranged from 12*l*. to 14*l*., whilst for the last four years it has only ranged from 9*l*. to 10*l*., which has made a considerable difference in the profits for this period. The prospects of the mine are very good, and perhaps better than they have been for the last two or three years, thus giving a fair prospect for dividends for year to come.

At the Herodsfoot Mine meeting, on Tuesday (Mr. M. Loam in the chair), the accounts for the four months ending December showed a balance of assets over liabilities of 3372*l*. 7*s*. 3*d*. and a cash balance of 1472*l*. 10*s*. 8*d*. A dividend of 1526*l*. (3*s*. per share) was declared, and 1837*l*. 7*s*. 3*d*. carried to the credit of next account. The committee were re-elected. The manager in his report congratulated the shareholders upon having a sound and prosperous property, and the continuance of such for a long time, in his opinion, is without doubt.

At Wheal Kitty (St. Agnes) meeting, on Tuesday (Mr. W. Teague in the chair), the accounts showed a credit balance of 2692*l*. A dividend of 1610*l*. (7*s*. 6*d*. per share) was declared. Details in another column.

At South Wheal Croft meeting, on Monday, the accounts showed a loss of 22*l*. on the four months, making a total debit of 22*l*. It was decided that in consequence of Capt. F. Gilbert's ill-health Capt. W. Martyn should be appointed, at a salary of 1*l*. 10*s*. per month, but that this meeting fully recognises the faithful services of Capt. F. Gilbert, extending over thirty years, and that his services as consulting agent to remain. The agents reported that the prospects of the mine were about the same as the last account. Seventy men were on tutwork, thirty on tribute. The average tribute was 8*s*.

At the North Zinc meeting (Mr. W. Carpenter in the chair) the accounts for the three months, ending with November, showed a credit balance of 221*l*. 10*s*. 7*d*. A call of 2*s*. per share was made.

At St. Aubyn United Mines meeting, on Feb. 6, the accounts showed a debit balance of 365*l*. 19*s*. 7*d*. A call of 1*l*. per share was made. The Grambler 40-in pumping-engine having been offered for 45*l*., and favourably reported on by the engineers, it was resolved that at the said offer be accepted, and that the contract for repairing the same, amounting to 7*s*., be also accepted. The report of Capt. John Michell stated that three of the lodes cut in driving the adit level north have never been seen for some 60 fms. (the length of the sett), and that all of the lodes are running through ground of beautiful strata, traversed by veins and cross-veins. He expects by them being vigorously wrought that they will have great success in these mines. Capt. Edward Rogers (of Wheal Agar) states that the indications warrant the expectation that this mine will open a great prize, and if it should prove otherwise he shall be greatly appalled, and shall hesitate in future to give an opinion from appearances.

At the New Brynpostig Lead Mine meeting, on Thursday (Mr. Job Taylor in the chair), for the purpose of considering a report recently made on the mine by Mr. H. Roblinson, F.G.S. (of the firm of Sheldford and Robinson, C.E.), and for the purpose of taking all such steps and the doing of all such things as may be necessary to give full effect to the consideration of the said report, it was unanimously resolved to issue the unallotted shares. A discovery of some importance has just been made.

COAL MARKET.—The fresh arrivals this week only numbered 81, principally screw-steamer. The demand for house coals has been very active, and is quite cleared at an advance of 6*d*. per ton for all descriptions Haswell Wallsend, 19*s*. 6*d*.; Elliot's Wallsend, 18*s*. 6*d*.; Eden Main, 17*s*.; Tunstall Wallsend, 17*s*.: 130 ships at sea.

The Bank of England return for the week ending on Wednesday evening showed in the ISSUE DEPARTMENT an increase in the "notes issued" of 235,880*l*. which is represented by a corresponding increase in the "coin and bullion" on the other side of the account. In the BANKING DEPARTMENT there was shown an increase in the "public deposits" of 1,818,709*l*. in the "other deposits" of 580,701*l*. and in the "rest" of 18,565*l*. together 1,892,975*l*. and a decrease in the "seven day and other bills" of 35,521*l*. = 1,857,444*l*. and decreasing therefrom 1,608,527*l*. the increase in the "other securities" on the other side of the account, there remains an increase in the reserve of 348,927*l*.

CLIFFORD AMALGAMATED.—The Vice-Warden of the Stannaries delivered a judgment on Feb. 11. It will be recollected from what appeared in last week's Journal, that the executors of the late Sir William Williams, Bart., and Sir F. F. Williams, the treasurer of the mines since his father's death, claimed to be allowed to prove for moneys advanced towards defraying the cost of working the mine. His Honour said the sum represented the total of uncharged accounts extending over a period of seven years, in a concern which expended every two months nearly 10,000*l*. He could not think, considering the magnitude of the company's operations, and that the evil had been gradually creeping on, that the amount was so large as necessarily to have arrested the attention of the committee; but

at the same time he admitted it was not easy to acquit them of negligence, nor could he escape from the conviction that it was their duty to have checked the rough cost-book by the records of their own ledger. He held, however, that these uncharged accounts had been duly allowed by the general body of the adventurers. It was perfectly clear to him that it was not open to the opponents of the chair, representing a very small section indeed (less than 20 so far as he could know anything) of the general body of shareholders, to come to the Court asking it, without any allegation of special damage to themselves, to disallow *in toto* a claim which they had failed to connect with fraud, and which was confirmed or acquiesced in more than two years ago by the great majority of their co-adventurers. The claim, therefore, must be allowed, and the costs of the hearing to be paid by the parties opposing it. The official liquidator's costs to come out of the estate.

MINING ENGINEER WANTED.

WANTED, a PRACTICAL ENGINEER, to take a SECOND MANAGEMENT OF LEAD MINES IN SPAIN. Must speak Spanish. Address, with copies of testimonials, to JAMES M. BURNUP, Dunster House, Mincing-lane, E.C.

TO FURNACE MANAGERS.

WANTED, a THOROUGHLY COMPETENT PERSON as FURNACE MANAGER for a SMELTING WORKS IN SOUTH WALES. He must understand the MIXING and SMELTING of HEMATITEIRON ORES, and have had considerable experience in the MANAGEMENT of FURNACES, and in the production of GOOD BRANDS of PIG-IRON.

Address, with copies of testimonials, and stating past experience and salary required, to "The Smelting Company," MINING JOURNAL Office, 26, Fleet-street, London.

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WANTED, AN OFFER FOR SEVERAL THOUSAND TONS OF MANGANESE ORE, containing 17 per cent. MANGANESE and 27 per cent. of PEROXIDE OF IRON, delivered to Liverpool or Garstone. Apply to Mr. JAMES SAUNDERS, 64, Darlington-street, Wolverhampton.

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SIX THOUSAND POUNDS, if judiciously laid out, WILL PURCHASE AND PLACE IN A STATE OF PROFIT THREE LARGE MINES, all furnished with MACHINERY for PUMPING, DRAWING, &c., and capable of returning from 100 to 200 tons of ore per month. For particulars, apply to CAPT. FRANCIS, Goginan, Aberystwith. Goginan, 8th February, 1871.

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WILLOUGHBY BROTHERS' PATENT STEAM ORE STAMPER will shortly be READY FOR SALE. Apply, for prices and particulars, to WILLOUGHBY BROTHERS, Foundry, Bedruth; or Central Foundry, Plymouth.

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GRATIS—FORWARDED ON APPLICATION.

A TABULAR STATEMENT OF DAYS OF MEETING OF THE PRINCIPAL MINES DEALT IN ON THE LONDON MARKET. JAMES BRENCHLEY, 32, Nicholas-lane, Lombard-street, London.

TREVARACK MINING COMPANY.—The opinions of the following mining captains, James Pope, late of Wheal Basset,—Harris, of Great Wheal Vor,—Micelli, of New Treleigh, W. Vivian of Camborne, James Evans, of St. Agnes, H. James, late of Bedruth,—Dodge, of Callington, and other well-known authorities, may be obtained of Mr. L. F. BELLOT, 20, Canobury Villas, Islington, N.

THE VAN MINING COMPANY (LIMITED).—Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of the shareholders in this company will be HELD at their offices, 9, Union-court, Old Broad-street, London, on TUESDAY, the 28th instant, at One o'clock precisely.

The Transfer Books will be closed from the 21st instant until after the meeting.

By Order, W. J. LAVINGTON, Secretary.

* * * The meeting will be held at Alston to enable the shareholders to inspect the mine.

The Transfer Books will be closed until the 22nd instant.

ENGLISH AND AUSTRALIAN COPPER COMPANY (LIMITED).

Notice is hereby given, that the ORDINARY GENERAL MEETING of the Shareholders of this company will be HELD at the London Tavern, Bishopsgate-street, London, on WEDNESDAY, the 22nd day of February instant, at 10 o'clock, in pursuance of the DEED of Settlement.

By Order, CHARLES B. ROGERS, Secretary.

N.B.—The Transfer Books will be closed on Tuesday, the 21st instant, and re-opened on Wednesday, the 8th proximo.

LEAD MINING IN WALES.

WEST RHOSWYDOL MINE is situated a FEW MILES from the town of MACHYNLLETH, and is locally considered to be a PROPERTY of HIGH PROMISE.

Peculiar interest is attached to it by reason of its immediate proximity to a number of the most valuable mines of the district, amongst which Dyfi, Rhoswydol, Cwmbyr, and Cae Conroy are the most noticeable; nearly all the lodes traversing these sets, and from which valuable returns of ore are procured, converge in West Rhoswydol set, and at their junctions are expected to make great deposits of ore.

EXTRACT FROM CAPT. WILLIAMS'S REPORT.

"WEST RHOSWYDOL.—We have found the lodes producing ore up to the eastern boundary and at the great cross-cut, and have also proved a junction on the west, as well as on the east. It is, in my opinion, simply a matter of time as to the development of this undertaking, and of the establishment of the West Rhoswydol Mine as a splendid property."

Messrs. LIPSCOMB and CO., Sharebrokers, 39A, South Castle-street, Liverpool, STRONGLY RECOMMEND the PURCHASE of these SHARES.

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THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, FEBRUARY 18, 1871.

MINES' REGULATION AND INSPECTION.

From the very early period of the session at which Mr. BRUCE, the Home Secretary, has re-introduced the Bill for the regulation and inspection of mines, it may fairly be hoped that another year will not be permitted to elapse without the question being definitely settled, and the mining community being provided with an Act of Parliament giving general satisfaction to all concerned. The measure now under consideration is intended to apply to all mines, whether collieries or metalliferous mines; and as Mr. BRUCE has had the advantage of ascertaining the views and feelings of those representing all the interests involved, it may be concluded that the relative importance of every claim has been fully and impartially considered. Indeed, in the single question of the ventilation of mines, we have an excellent example in his treatment of the first general rule. There is at present provided for "an amount of ventilation sufficient under ordinary circumstances to dilute the noxious gases," and owing to the difficulty experienced by the Inspectors in obtaining convictions in case of neglect, in the absence of any direct proof that the circumstances were ordinary, Mr. BRUCE had the intention of throwing the burden of proof upon the mine owners and their agents; but upon consulting the Inspectors, who are, of course, in the best possible position for pronouncing an impartial opinion on the subject, it was concluded that, on the whole, it was best to retain the law in its present form. It is, no doubt, extremely difficult to determine whether the one or the other course is preferable, for whilst the men are entitled to all the protection which the law can give them in the way of securing the proper ventilation of the mines in which they work, they are admitted to be so careless of their own safety that it would be undesirable that any increased encouragement should be given them, by adding to the already heavy responsibilities of the masters in case of accidents.

The question of educating miners' children seems also to have received a large amount of careful attention from Mr. BRUCE: he evinces the earnest desire to promote the welfare of the children, but he very properly declines to permit the workmen to use the cry of education and protection for the children (which the workmen would have included all young men under 16) as a means of carrying out the views of trades unionists and unduly increasing wages. That the wages of a miner, or any other workman, would be higher if men were not permitted to work at the trade for more than a certain number of years (say between the age of 21 years and 40 years) cannot be denied, but how far such a restriction would be acceptable to the community generally is more than questionable. That the present regulations are altogether imperfect is acknowledged, and Mr. BRUCE remarked that the existing provisions for securing the education of miners' children are illusory, but he sees, as anyone else must see, that in the proposition of the Working Miners' Association—that no child shall enter a mine under 12, and then only on passing an examination; that from 12 to 16 the labour shall be limited to eight hours per day; and that a youth should attend school a certain number of hours per week—there is something more than a desire to promote the education of the children. By the new Bill children between the ages of 10 and 13 may be employed three days per week, and must attend school at least 10 hours per week; the labour of all young persons under 16 is to be limited to 56 hours per week. Mr. BRUCE pointed out that children's work in mines is not of a tiring nature—much less so than in factories—so that there can be no valid reason for exceptional legislation in their favour.

The working miners have been met in the new Bill upon a point

which they attach considerable importance. It was complained that whilst the workmen were liable to imprisonment without the option of a fine, agents and others, often equally culpable, were punishable by fine only. Since fines inflicted upon workmen are frequently paid out of a general fund, and, therefore, relieves the defendant of any inconvenience which its payment might give rise to, it is questionable whether any change in the law was absolutely required; yet the alteration which Mr. BRUCE has made removes even the appearance of partiality, and should, therefore, give complete satisfaction. He observed that there was a distinction between the two cases, for the offence of the workman was often clear and definite, while that of the agent was more indirect and complicated, and less easy to prove: Mr. BRUCE, therefore, retains the power to imprison a workman if he deserves it, but gives him the right of appeal if he be sentenced to imprisonment without the option of a fine.

The propositions emanating from the Executive of the Miners' Association are generally considered, even amongst the more intelligent of the workmen themselves, not to be such as would have been expected from men claiming to be practically acquainted with every detail of colliery working, but some of the suggestions are excellent, and will receive due attention. It is thought that one proposal, which is not likely to be adopted, is that "Minister of Mines should be appointed." It is needless to say that were every body numbering 350,000 persons to have a minister to look after their condition and welfare, there would be little room left for other legislation than that belonging to certain working men and special interests.

The daily inspection of mines and the registering of the state of the air passing through them, is also considered by the men to be of importance, and it is proposed to add a clause to the effect—

"That it is a matter of the greatest importance that more vigilance be used by the mine owners and their managers in the management of all mines by making a daily inspection of the workings, and that it be made imperative that a daily record be kept of the quantity of air passing through all the working places, the same to be transmitted to the Government Inspector of Mines for the district every four weeks, under a penalty of 50s. for neglecting."

For the purpose of ascertaining who is the responsible person in a mine in case of accident through alleged neglect, it is proposed, and there appears little objection, to insert a clause—

"That on the appointment of any qualified person to be the manager of a mine, the owner of such mine shall, within one calendar month from the date of such appointment, send to the Inspector of the district a notice of the appointment, with the name of the person so appointed, and should also cause the name of such manager to be placed in a conspicuous part of the pay-office, so as to be seen by the workmen employed."

As the fatalities from the fall of coal and roof are probably more numerous than from any other cause, in most instances from the neglect of the men to take the most ordinary precautions, the men propose that there should be a clause—

"That the owner of every mine where prop-wood was being used should cause the same to be cut in proper lengths, and placed as close as possible to where each man was working, for their immediate use in times of bad roof and danger from falls, such timber to be placed there at the expense of the owners, and not the men as heretofore."

The question of the examination of agents has been negatived in the Bill. Mr. BRUCE has given the subject a great deal of consideration, and concludes that it would be far more dangerous than advantageous for the Government to interfere to attempt to influence the choice of agents. He explained that the defects which exist in the management of collieries do not arise so much from a want of education on the part of the managers as from want of attention to duties, and from failure to use the means at their disposal for securing the safety of those entrusted to their charge. As to the examination or non-examination of agents, it is a matter that must be considered from two distinct points of view. The imposition of an examination would practically throw the offices into the hands of a superior class of men, but they would decidedly be less practical. The examination would, moreover, prevent to a great extent the more intelligent working miner from rising to the position of manager, as many do at present, since the workman would seldom have the time or means at his disposal to enable him to obtain the theoretical knowledge requisite to enable him to pass a regular examination. As some of our best mine managers are those who have commenced life as workmen, and who do not possess a large amount of theoretical knowledge, Mr. BRUCE is, no doubt, quite justified in the conclusion he has arrived at, so that in this, as in other parts of the Bill, the provisions will be such that no class can be dissatisfied with them.

THE WHEATLEY COLLIERY INUNDATION.

From our account last week of the concluding inquest upon the four men and a boy, who were killed by water breaking in upon them at the Wheatley Hill Colliery, it will have been seen that a verdict of a grave character was recorded. This necessitates nothing less than a trial at the next County Assizes of the three officers of the pit on a charge of manslaughter. The fact that the jury were some three hours and a half in consultation, even after they had been sitting and hearing evidence nearly twice the time, is indicative that very much diversity of opinion must have existed amongst them, and that there were members of the panel who for a long time declined to sanction such a verdict. These, however, it is clear must have been ultimately starved out. We do not, of course, impeach the accuracy of the decision to which first the majority, and ultimately the rest of the jury came; but we are not surprised to learn that their decision was not approved by the Coroner. That gentleman, it will be observed, immediately that the jury made known their verdict admitted all the three accused to bail upon their own recognisances in a comparatively nominal bond. Coroners know well the views upon questions of this kind that are held by judges of the land. They do not forget that a mistake in judgment is not held to be a criminal offence. It would be a great pity if it were. They further know that acts which men perform, or neglect to perform, that may ultimately issue in disastrous consequences, if these of omission or of commission equally jeopardise their own lives as well as the lives of other persons, are equally regarded by our first law authorities as having the pale of criminal responsibility.

However, inasmuch as the facts in this case have to be submitted to a judge of the land, even though it may happen that they will not occupy the notice of a common jury, but be summarily dismissed by the grand jury upon instructions from the judicial bench, we must not be understood here, in anything that we have to say, as prejudging the case. The Wheatley Hill inundation, as we pointed out on Jan. 28, is very much like other accidents of the same class that have gone before it. Water had accumulated in old workings at a higher level, and it was being drained off at a lower, with as much caution as is usually displayed; but, as too often happens, the live work got nearer to the seat of the mischief than was thought by anyone having anything to do with what was going on. In the accident which happened at the Molyneux Colliery, near Mansfield, the property of Messrs. EASTWOOD and SWINGLER, ironmasters, of Derbyshire, when four colliers were killed, on April 3, 1869, shortly after the inundation on the Earl of DUDLEY's property, at Brierley Hill, the facts are given by Mr. EVANS, Government Inspector of the district, as follow:

"The shafts are sunk to the 'top hard' and the 'dunsil' coals, which last is about 60 yards deep, and both seams being worked. Plans of this portion of the Tiverton property, made by Lady CARBARYON'S surveyors, show 'old workings' of great extent in the 'top hard coal,' bounded on the lower side by an old level. To the deep of this, according to a stipulation in the lease to the lessers, a barrier of 22 yards of solid coal was to be left, to protect the present workings from inundation."

Now, according to the plans, Messrs. EASTWOOD and SWINGLER's working places were 70 yards from the old level, at the nearest point. However, on the night of April 2, whilst the men were at work, a sudden rush of water came into the pit, filling the "dunsil" and "hard coal" workings, and soon rising to a considerable height up the shafts. Measures were immediately adopted to get the water out. The pumps were set to work at increased speed, and kept going day and night. The winding-engine was constantly drawing water by means of a large bucket, and a portable engine, kindly lent by the Stanton Iron Company, was also used to wind water out of another "hard coal" shaft. In spite of all these efforts many weeks elapsed before the water was sufficiently lowered in the shafts to enable explorers to enter the workings.

An inquest was held, and after a patient enquiry a verdict of "Accidental Death" was returned, the jury adding the following remarks: "That Messrs. EASTWOOD and SWINGLER were blamable for the manner in which the mine was conducted; that MILLERSHIP, the agent, was also to blame for not having bore-holes in advance of the

workings, and that the surveyors, Messrs. BOOT and SON, were censurable for the inaccuracy of the plans."

Here it will be perceived that, although there was manifest neglect of duty by the agent, yet the verdict was such as left him in the hands of the Government Inspector to deal with under the terms of the Mines Inspection Act, and not under the regulations of an Assize Court. The verdict was "Accidental Death," though the agent was blamed. Very different was his conduct from that of the officers at Wheatley Hill, against whom the graver course is to be pursued. As to him and his employers, Mr. EVANS reported to the Home Secretary: "I did not consider the owner responsible for the accident. They placed full confidence in their agent, and gave him full power to do everything he thought necessary for the safety of the mine, but he turned out to be an inefficient man, and incapable of directing with safety underground operations. There can be no doubt that he ought to have kept bore-holes in advance of the rise workings, and if this had been done the position of the level would, in all probability, have been ascertained without any mishap. However, he has been severely punished, having been obliged to give up his situation, and leave the neighbourhood immediately after the inquest."

At Wheatley, as well as at the Molyneux Collieries, old workings containing water were known to be ahead, but at Wheatley they were being probed. At Wheatley, however, as at Molyneux, the old workings were nearer to the new than the plans indicated, and the enemy, therefore, came upon them suddenly. They deemed themselves tolerably secure, but they were in reality in danger. Certain of the men urged that flank bore-holes made more frequently would have prevented the mischief. One of them deposed "If the flank bore-hole had been put in the west side on the previous day 3 yards off the face no accident would have occurred, as it would have brought the water away." A second miner gave similar testimony. Mr. SPENCE, the head viewer and manager of the colliery, told the jury

"That no danger was apprehended, that they had carried on the borings more to humour the men than from any apprehension of danger, and that if any flank hole had been put in on the previous night it would not have averted the accident."

The lesson which the whole facts teach is that very much caution is needed when pits are being worked at a lower level than that in which pound water is known to exist. It is impossible to depend with anything like certainty upon old plans. In this case the water proved to be nearer to the men by 16 yards than the plans had indicated, and the water was, therefore, reached some days earlier than was expected. Whenever it is practicable these plans should be checked again and again, and unwonted caution should be displayed in every such case at about the rainy seasons. Nor would overmen and others act amiss in abundantly humouring the men whose lives would be placed in so much peril in the event of any mistake. THOS. WATSON, the overman, in this case admitted that the men had asked that flank holes might be bored, and that one of them had said he would compel them to bore the holes, but they gave no reason for their request. He added that on the day before the accident a collier, named ROBERTS, who had been working in the drift, said, as he left the pit, that the place had been bleeding little more than previously, but he did not add that it was nearly holed. The cost of such work is very trifling, and although it may turn out that the complaints are made in order that a job might be got, still the work, even if a work of supererogation, is an error on the right side. But everyone will admit that the great radical remedy for all such misfortunes is the releasing of the water at the higher level. To effect this is sometimes a serious matter in respect of cost, nevertheless the step merits more attention that it occasionally receives.

ARBITRATION—WHAT IT CANNOT DO.

MR. HUGHES'S PRINCIPLES OF ARBITRATION FAULTY.

We believe Mr. HUGHES could confer no greater honour on himself than by being the successful formulator of a scheme which would regulate capital and labour with satisfactory and unvarying precision. But in arbitrating for the iron trade, his "easy, artless, unencumbered plan" is based on a limited view of the question, and is judged of entirely *ab extra*. In his explanatory statement he says—

"Already a custom would seem to have grown up in the trade which is acknowledged within certain limits both by employers and workmen, which is that for every rise of 12*s*, in the selling price of manufactured iron wages should be advanced 10 per cent. in mills and forges, and 1*s*. per ton for puddling. It will be only necessary as a first step that the board should formally acknowledge this scale by resolution, declaring that it is to be adopted in future, and adding, perhaps, a proviso that in no case shall any reduction or advance be made unless the selling price shall have varied 5*s*., so as to be equal to 8*s*. a ton for puddling, and 2*s*. per cent. on other wages."

In arbitrating on a question of this kind, nothing should be taken for granted—at least, no custom of the trade—because this very custom may be the root of the evil, and be the very thing that requires to be removed and taken out of the way to bring about a true understanding between employer and employee. And certainly if iron-masters saw that so simple a scheme would suit their requirements as that proposed by Mr. HUGHES, is it at all likely that they would delay its universal adoption? We believe Mr. HUGHES was actuated by an honourable desire to give a righteous award in the matter submitted to his decision; but a little consideration will show that it is quite impossible to regulate the wages of the ironworker according to the selling price of iron, simply because all classes of iron are not raised in price simultaneously; nor are the prices of the raw material and the agents used in the manufacture to be had at the same unvarying prices. Coals and iron, in their raw state, may be both so enhanced in value as to require an advance of 10*s*. a ton on the manufactured article; and on what principle of equity could it be said that the puddler was entitled to 6*s*. per ton advance, and the miller, &c., to 5 per cent.? And yet, if such a principle as this were conceded, where are the men who would be found willing to give it up? Then, as sometimes occurs, we have a great demand for plates, and plates advance, perhaps, 2*s*. per ton, while other manufactured iron either remains stationary in price or is only slightly advanced. Or the like occurs with rails, and rails are advanced out of proportion to the other classes of iron. What, according to what a contemporary designates Mr. HUGHES's "self-adjusting" scale, would be the operatives' wages in such circumstances? Again, a firm enters into engagements to-day to "deliver forward" (say) six months hence 5000 tons of finished iron at 71. 10*s*. per ton, but within 30 days of the date of the delivery of the order the price is advanced (say) 10*s*. a ton, where would be the equity of the workman receiving the advance which Mr. HUGHES's scheme provides, and to which the men would hold with the tenacity of martyrs? And thus we might proceed, pointing out other combinations of circumstances which the principle of arbitration proposed by Mr. HUGHES would only outrage; but this we need not do, and, while accepting the adaptability of the principle to the purpose in hand, it is impossible to accept of it as of universal application in adjusting the wages in the iron trade.

MINERAL PRODUCT OF THE UNITED STATES.—The product of the precious metals in the United States during the past year is estimated at 12,500,000*l.*, distributed thus: California, 3,600,000*l.*; Nevada, 3,000,000*l.*; Oregon and Washington territory, 800,000*l.*; Idaho, 1,500,000*l.*; Montana, 2,400,000*l.*; New Mexico, 200,000*l.*; Arizona 400,000*l.*; other sources, 800,000*l.*

MINING IN NEW MEXICO—THE BURRO MINES.—In several of our recent numbers we have referred to the remarkable deposits of argeniferous quartz in Grant county, New Mexico, close to the Arizona border, and not a great way to the north of the Mexican State of Sonora. These ledges, which are exciting the wonder of the geological world, may be described as presenting the appearance of three main trunks or arteries, from which, in turn, a number of distinct ledges branch out. The croppings towering in the

the magnitude of these ledges, must ever be futile. Nothing in history has any resemblance. The famous and world-renowned mines of Mexico and Peru fall into utter nothingness when brought into comparison with this grand argentic deposit."

This statement will have additional weight from the fact that Mr. McCormick is, we understand, no mean authority on quartz.

CALIFORNIAN MINES, AND EUROPEAN CAPITALISTS.—It will be recollect that some months since Mr. J. BERTON, Vice-Consul of France at Sacramento City (then on a visit to London), was requested, on behalf of numerous investors, to investigate the position of mining enterprise in California. In a letter just received (dated Sacramento, Jan. 25) he writes:—

"In order to accomplish fully and successfully the arduous and delicate task of investigating the gold mining companies of the Pacific States, according to the instructions I received on July 15, in a public meeting in London of capitalists and mining shareholders, I have thought proper to call a convention of leading miners from every county of California and Nevada. This movement, which I have inaugurated under my own responsibility, was rendered necessary by the extreme difficulty I found in selecting experienced and reliable men. It has, moreover, received the support of the State authorities and of the people in general. The convention will be held on the 30th inst. in the Senate Chamber of the magnificent new granite capital of Sacramento, the capital of this State. A number of distinguished representatives of European countries in San Francisco have applied for seats at the convention, with the privilege of presenting such reasons or suggestions as may aid in the formation of a Miners' Protection Union, the object of which will be to exclude from the foreign as well as from home markets all the accumulated worthless and 'Bogus' mining shares, to investigate the situation and standing of the old-established as well as the new mining companies, and finally to elect as officers of said 'Union' experienced and respectable men, whose names will be a moral guarantee before the European markets. It is a fortunate circumstance that the proceedings of the convention will be witnessed by the foreign consuls or their representatives. I could now say much in regard to the condition of the resources of these Pacific States, but I have to reserve my remarks until after the convention, which is the first movement of the kind on this coast, and which, we may expect, will produce the most startling revelations in regard to the corruption of the thousand 'Bogus' and 'Wild Cat' mining concerns established here since the last 10 years. Let the capitalists of Europe now be more cautious than ever, and decline to invest in any Californian enterprises, until some reliable channel of investment be offered to them by an institution such as the proposed Protective Union, managed by men of high standing, and who will have at heart the restoration of the credit of these States abroad, and to efficiently promote the development of their numerous resources."

REPORT FROM SCOTLAND.

Feb. 15.—Those interested in the price of Scotch pig-iron would be prepared last week for the advance which followed Gambetta's resignation, and the near prospects of peace. The inadequate prices which have ruled in this market for warrants afforded moneyed men an admirable opportunity of purchasing on such terms as could scarcely fail to prove remunerative; and the slight but positive impulse which was communicated last week shows how sensitive operators are, and with what alacrity they claim their profits. But speculators have a good broad margin left on Scotch pig-iron, and those who can buy and hold till France is at rest are very likely to realize large profits. In that country whole districts have been swept of houses and all shelter for the population, and as iron houses can be improvised with great rapidity, a considerable demand for iron for architectural purposes is expected to be one of the results of peace. In these circumstances Scotch pig-iron has advanced about 1s. 1½d. a ton, but was yesterday rather lower at close, sellers 52s. 7d. cash, and 52s. 10d. month, buyers 6d. per ton less. The market was quiet to-day, and 52s. 6d. to 52s. 6d. was accepted for about 1000 tons, closing buyers 1d. per ton less, and 52s. a month. Makers' iron has all been advanced; Coltness, 62s.; Gartsherrie, 61; Calder, 59s. 6d.; Shotts and Summerlee, 58s.; Langloan and Carnbroe, 56s.; Eglinton, 53s. 6d.; No. 1, g.m.b., 53s. 3d.; No. 3, 52s. The shipments for the week, though not large, are an increase on those of the corresponding week of last year, being—foreign and coastwise, 10,820 tons, against 8122 tons in the same week of last year, or an advance of 2700 tons, which makes the decrease in the shipments of the year to date amount to 7600 tons.

Malleable Iron is not being quoted, or rather buyers are not enquiring after quotations, being aware that it would be quite useless as long as the strike lasts. It would be of no purpose to occupy your space detailing what took place at the numerous meetings of the operatives held since last report; suffice it to say that they still cling with dogged pertinacity to their original demand, in so far as it is not affected by Mr. Hughes's award; and persist, like the hunted ostrich, in burying their heads in the sand, lest they get a glimpse of the unreasonableness of their position. There are, notwithstanding, indications of a breaking down, no money having yet been forthcoming from the English districts, and the misery increases amongst all classes of the workmen, but especially amongst the labourers. The shopkeepers in the districts are also feeling the effects of the evil. The masters, in reply to the overtures of the workmen, say that they cannot afford to pay the rates demanded, and some of the workmen on strike know that there are firms in the trade who have within a limited number of months made—not profits—but very heavy losses out of their manufacturing operations. This should prove conclusive. As we post our letter a rumour is current that Blochairs men have acceded to the masters' terms. A general meeting also takes place this afternoon here, when Mr. Kane is to be present and address the workmen, and consider the entire question along with them. A meeting of the ironmasters was also held to-day, but the result has not inspired up to the time we close our letter.

The Coal Trade is very much as reported last week, only no reduction in quotations have yet been made. The shipments are beyond the average for this week, being 27,004 tons, against 21,543 tons in the corresponding week of last year. At the usual meeting of the Fairfield Association, Mr. McMillan read an interesting paper on coal, in which he described the different kinds of coal in use, explaining the characteristic properties of each, and pointing out the most suitable kinds for the production of gas, &c. A short discussion followed, but nothing of any consequence was elicited.

An iron twin-screw gunboat was launched last week for the Admiralty, named the Kite.

On Monday, the monster blast at the Bonavon Quarries, Argyllshire, was successfully exploded by electricity, when about 80,000 tons was displaced, the rock bursting, and pressing forward, without report or noise. Nearly 8000 lbs. of gunpowder was used in the blast.

NEW IRON MANUFACTURING PROCESS—THE FERRIE HOT-BLAST FURNACE.—Attention was directed, some two or three months since, to this furnace, which was constructed at the Monkland Ironworks, and the result of its working has now been ascertained by a series of carefully conducted trials. The furnace is constructed on the bell and cone principle, neither flame nor smoke being allowed to escape at the top of the furnace. The coal is self-coked in four descending compartments or retorts, and the heat necessary for this purpose is created by the burning of the waste gases in a series of flues arranged around the retorts. Comparing the yield of the ordinary and of the new furnace the advantage of the latter is very apparent; two runs of about 1000 tons of ore each may be taken as an example. The materials used were—in the ordinary furnace, 1145 tons 6 cwt. of coal, 1071 tons 2 cwt. of ore, and 375 tons 14 cwt. of limestone; and in the Ferrie furnace 1144 tons 15 cwt. of coal, 1127 tons 4 cwt. of ore, and 499 tons 11 cwt. of limestone. The production of pig-iron was—in the ordinary furnace, No. 1 iron, 333 tons 3 cwt.; No. 3 iron, 196 tons 16 cwt.; No. 4 iron, 25 tons 13 cwt. = 555 tons 12 cwt. in all; and in the Ferrie furnace, No. 1 iron, 489 tons; No. 3 iron, 189 tons 15 cwt.; No. 4 iron, 35 tons 16 cwt. = 634 tons 12 cwt. in all. Thus with the ordinary furnace every ton of pig-iron produced required the consumption of 52 cwt. of coal, 38 cwt. of ore, and 13½ cwt. of limestone; whilst with the Ferrie furnace, each ton of pig-iron was produced with the consumption of only 36½ cwt. of coal, 35½ cwt. of ore, and 12½ cwt. of limestone. The conclusion to be drawn from these figures is that destruction of ore takes place in the open-top furnaces through the intensity of heat produced by the burning of the gas. It was at one time contended that the interior brickwork would never resist the action of the intense heat produced by the burning gas in the flues—where the temperature is fully equal to a heat competent to coke coal—and that the crossed arches in the interior of the furnace would give way and the whole collapse. This has been proved an utter fallacy; the furnace is so constructed that the interior of the flues can be examined, as they have been from time to time, and up to the present date not the slightest change in the brick is apparent; and when we find brick-work similarly conditioned, such as in the lining of a blast-furnace,

from the boshes upwards, lasting (as in the case of the lower part in the present furnace) for fourteen years, there is not the slightest apprehension as to the durability of the flue brickwork. Altogether, Mr. Ferrie's ingenious invention is doubtless destined to mark a new and important era in the manufacture of pig-iron.

REPORT FROM THE NORTH OF ENGLAND.

Feb. 16.—Trade generally is quiet this week, and there is little new or interesting to report. The market, on Tuesday, was well attended, but there was very little business transacted. Pig-iron makers were firm in their quotations, which were—for No. 1, 50s. to 50s. 6d.; for No. 3, 46s. 6d. to 47s., not cash on trucks at sellers' works. The generality of large buyers are supplied under contract for some time to come, and there is, consequently, no pressing demand in the market. Deliveries have lately been much retarded, owing to the unfavourable weather for shipping, and to the North German and Baltic ports being closed. As soon, however, as foreign ports are opened, and the spring deliveries commence, the accumulated stocks of pig-iron reported in last week's *Mining Journal* will, it is hoped, be quickly reduced. The blast-furnaces are all in full operation, and the new furnaces in course of construction are being pushed on with as rapidly as circumstances will permit. The Ayresome Ironworks, the property of Messrs. Gjers, Mills, and Co., are fast approaching completion, and are expected to be "blown-in" in the course of two or three weeks. In the rail market there is somewhat more encouragement just now, by an additional number of enquiries for railway iron being afloat. One or two firms in the Cleveland district are said to have secured fresh orders within the past few days for rails, but many makers report themselves to be scarce of work, and that their mills are only kept going in working off contracts secured some time ago. Large quantities of rails continue to be put into stock awaiting the proper time for delivery. The prolonged dispute in Scotland has brought a good many orders to the North of England for plates and angles; and most manufacturers of shipbuilders' iron in this district are said to be now pretty well off for work for some months. Shipbuilding on the Tees is brisk, and new orders have lately been booked by Tees-side firms. There is considerable animation observable in engineering establishments. Some houses have hardly so much work as they could get through, but others are liberally supplied. For marine work the requirements are heavy. There is not so much doing in the bar-iron departments, but an improvement may be expected with the commencement of spring. Enquiry for pipes and foundry castings is better, but ironfounders complain of low prices. The Coal Trade remains unchanged, and is brisk and well reported of. For Coke there is also a strong demand.

The operations commenced by Messrs. Bolekow, Vaughan, and Co. (Limited), at their Middlesborough works, some time ago, for obtaining salt—a bed of which was proved to exist to the extent of 100 ft. thick—are still being proceeded with. The two pits are now above 50 fathoms down, but we hear that a good deal of water is at present being met with, which is making the progress of the sinking slower than usual. It is understood that the accounts of this company, which are closed on Dec. 31 in each year, present most satisfactory results upon each year's workings, and no doubt at the general meeting of shareholders, which is usually held in March, a good dividend will be declared. The shares of Bolekow, Vaughan, and Co., which are 30s. paid up, are quoted on the market at 64½ to 65½. This firm are reported to have lately purchased a considerable steelworks plant in Wales, and that the manufacture of Bessemer steel rails will be proceeded with as early as practicable.

CLEVELAND PIG-IRON TRADE.—MR. C. E. MULLER WRITES—

Feb. 13.—The market for Cleveland pig-iron has been quiet but steady during the past month. Owing to the stoppage of the mills and foundries during the New Year holidays, coupled with the closing of the continental ports by ice, stocks have run up heavily. Prices have not been affected, however, as it is expected that recent accumulations will soon be cleared off on the opening of the navigation. No. 1 is quoted 50s.; No. 3, 46s. 6d.; No. 4, 43s. 6d.; mottled, 45s.; white, 41s. 6d. per ton, f.o.b. Tees. For immediate delivery a few exceptional transactions have taken place under these rates. The following are the usual statistical figures for January:—

Production.	Ship, foreign.	Ship, coastwise.	War, stores.
Jan., 1871 151,826	3,401	16,858	12,039
" 1870 131,168	15,083	20,970	30,594

Increase 17,658 ..Decrease 11,682 ..Decrease 4,112 ..Decrease 18,525
The production last month is the highest ever reached. The increase is about 12½ per cent. over last year, and January last year showed about the same percentage increase over 1869. Next month we will have a further addition, it being the intention of Messrs. Gjers, Mills, and Co., I believe, to blow in their two new furnaces early in the month. It will be noticed that the decreases on foreign and coastwise shipments quite account for the addition to the stocks, which are now 132,554 tons, against 117,345 tons at end of last year. The local consumption keeps well up, and will shortly be largely increased. Four new works—Britannia, West Marsh, Ayrton, and Imperial Iron Works—are rapidly approaching completion. The wages question has been finally disposed of for another year, the men submitting to a reduction of 6d. per ton on puddling, and 5 per cent. on mill work. Rail makers can now go into fresh contracts with some confidence. It is a pity the Scotch Iron Trade cannot adopt the principle of arbitration with equal success. Freights to the Continent will be dear this spring. According to present indications the shipments to Germany will be something unprecedented.

TRADE OF THE TYNE AND WEAR.

Feb. 16.—There has been a large number of vessels in these rivers of late, and a considerable amount of business has been done in all branches, both imports and exports. Large imports have arrived of ore, Esparto grass, &c., and heavy shipments of coals and coke have been made at the Tyne Dock and other places. Most unfortunately, a tremendous gale from the south-east, with intense cold, broke on this coast on Friday last, and great damage to shipping and loss of life have ensued in consequence. A number of light vessels, and also many laden ones, bore up for the Tyne for shelter, and several on entering the river got too far to the north, and were wrecked; some lives were lost, and most heartrending scenes were witnessed. But further south greater damage was done to shipping than here, and many sailors have perished.

The result of the inquest at Thorley has caused much surprise, and, without giving any opinion as to the wisdom or justice of the verdict, it appears to be felt generally that the inquest was rather hurriedly conducted, and hastily, if not prematurely, brought to a close. It ought to have been adjourned, and some independent witnesses chosen from the ranks of mining engineers and practical pitmen examined; as it was, only the officers concerned and the men employed at the works appear to have been examined, and so strong a party spirit appears to be among them that those men can hardly be considered as disinterested parties. It would seem also from the evidence that some misapprehension had prevailed as to the form of the workings, it being generally understood by the officials that they were proceeding against a straight face, and that no places were driven beyond a certain point towards them, the fact being that a narrow bord had been driven in a direction towards them—a distance of 16 yards. The evidence appears to show that this has some connection with the unfortunate occurrence; but, as already remarked, the investigation appears to have been hardly carried fully out. Should the matter, however, be carried to another Court it will, of course, be thoroughly sifted.

The new mine Bill introduced by Mr. Bruce will be watched with the greatest interest by all parties here, as it is of the greatest importance to mine owners and workmen; on the whole, it appears to be characterised by a spirit of fairness and impartiality, but some of its provisions seem to show a want of thorough knowledge on the part of the framers of the Bill of the mining population. The proposal to allow boys to enter mines at 10 years of age appears to be a step in the wrong direction, and is simply absurd, as it provides that boys of that age shall only work three days per week, and shall have so many hours at school per week. Those intimately acquainted with the mining population know that boys when once at work will not again be got to go to a day school, and only the best of them can be induced to attend a night school, and this applies even to those days when the works are idle. The best course open appears to be to keep them at school until they are 12 or 13 years of age, and then allow them to enter the mines. The arrangement under the present Act which allowed boys under certain conditions to enter mines was practically a dead letter, it being found best if possible to keep all boys out under 12 years of age, and this was a very difficult matter, as great numbers of them tried if possible to evade this regulation,

It could only, indeed, be effected in many cases by demanding a certificate of birth before admitting them. The Bill will be closely watched in every stage as it passes through the House.

If we understand the proposed regulation as to the hours of labour for boys aright, it is proposed to limit them for all boys to 56 hours, or four days and two-thirds per week. If this is carried into effect, it will be considered a very great hardship by the workmen and their families, and it will materially reduce their earnings when trade is good. At present when trade is brisk the work of boys is eleven days per fortnight, or 66 hours per week, and the alteration will take 20 per cent. from their wages. Large numbers of boys, fifteen years of age, obtain 15s. per week, and some more than this, and the proposal, if carried out, will certainly seriously reduce their earnings, and, no doubt, it will also cause some inconvenience to the owners of mines, it will, indeed, all but stop the works on some days.

THE USWORTH COLLIER VENTILATING FAN.—An error crept into our report on this fan last week. It was stated that "this fan was partially started ten years ago." This was intended by the writer to be "three weeks ago." This large fan is to be finally started on Saturday next.

THE BURLEIGH ROCK DRILL.—This drill is now at work in Newcastle, and it attracts much attention. Two of the machines, a large and a smaller, have been set up on a piece of vacant ground near the Central Station, and are being shown in operation by Mr. Ball, one of the firm of Messrs. Charles Ball and Co., engineers and contractors, of Newgate-street, London, who are the patentee's sole agents for the drill. The drill is intended for open cut work in canals and railways, in tunnelling, shaft sinking, and all classes of work where drilling is to be done. There are four sizes made, drilling from 4 in. to 5½ in. holes, and feeding from 30 in. to 84 in. without change of drill points. The size recommended for general mining is the "jumper" size, its weight being about 300 lbs. It drills 4 to 1½ inch holes, and feeds 20 in. without change of drill points. The power required direct from a steam-boiler is about 2-horse for each drill as steam is rated. The drill is convenient, easily handled, and not liable to get out of repair. It will drill from 2 in. to 6 in. per minute, according to the hardness of the rock. The drill point used with the machine will make ten times greater advance at each sharpening than when used in the ordinary manner by hand and sledge. This is proved by records kept at the Hoosac Tunnel, Colorado, U.S., where the machine is very extensively used. The machine is so constructed that the piston-bar is the only part which receives the shock resulting from the blow upon the rock. By an ingenious peculiarity in the form of the cutting edge of the drill point, perfectly round holes are ensured, thus giving a greater area to the hole, and a larger percentage of the powder near its bottom. The machine is operating upon two blocks of freestone, the hardest the contractor was able to supply, and though the machine was fixed only temporarily, so that there is a degree of unsteadiness which somewhat injuriously affects the working, yet the results are highly satisfactory, and there is no doubt it will be of immense value in this district, where there is so much mining and quarrying to be done.

REPORT FROM MONMOUTH AND SOUTH WALES.

Feb. 16.—The result of the French elections having been so satisfactory, makers are evincing greater confidence, in the belief that the war will not be renewed, and some movement in the Iron Trade is again looked forward to. No material improvement can yet be pointed out, although a change for the better is noticeable, and prospects for the future are decidedly more hopeful. Although, however, there is still a scarcity of contracts on rail makers' books, it cannot be said it is altogether the result of the limited demand. The markets are somewhat more active, and enquiries more numerous than they have been since the opening of the year, but the deplorable lowness of prices precludes the possibility of makers committing themselves to more extensive engagements than will just suffice to keep their works fairly going in the meantime. Seeing the probability of the establishment of peace becoming shortly an accomplished fact, merchants are beginning to bestir themselves, and many are no doubt prepared to place some good contracts in the manufacturers' hands, but the latter still wisely act with caution, and prefer to hold out until more remunerative prices can be obtained. Speculators evince a disposition to make some ventures at the present low rates, if makers gave them any encouragement, but having so ably maintained their position during the months of depression and uncertainty, it is not likely that they will commit themselves now on the eve of, it is hoped, revived prosperity. Another month will unquestionably bring about some considerable changes in the position of the trade, if the war is not resumed. That an increase will take place in the demand seems now certain, and it is only reasonable that prices should proportionately improve also; but there is no doubt some uncertainty about it, inasmuch as the competition which will be carried on between this and other districts will tend very much to keep rates low for some time. The general desire for engagements that will afford full employment to the various large establishments will, to a great extent, necessitate such competition, and not, perhaps, until some weeks of renewed prosperity has been experienced, and all voids filled up, can prices be expected to reach what might be termed a remunerative scale. In American requirements there is but little change, the clearances continuing large to the United States, and orders are coming regularly to hand. There are specifications also from Canada, India, and some other minor sources. American contracts are still, however, the chief dependence in the rail branch, but there are indications that other substantial dependencies are about to be resuscitated. Russian buyers are, it is understood, making preparations for large purchases, and the Muscovite connection will, no doubt, be quite as important this year as formerly. Improvement is gradually taking place in home business, bars, plates, &c., being in request, and for pig there is a large enquiry, and it is not unlikely that the surplus stocks will be rapidly consumed, notwithstanding the very large make. There is a good demand for tin-plates, and prices are fairly maintained, but in some instances, rather than allow contracts to pass, makers give way in favour of buyers.

As remarked last week, some advantage has been taken of the armistice by coalowners to send supplies to the French markets. A further increase is shown in the clearances for that country, and it is evident that the conviction is growing stronger that the war will not be resumed. The steam coal proprietors of this district, therefore, look forward to a large increase in the demand on French account for industrial purposes, the war having caused such extensive damage in that country that there is no doubt a heavy supply of coal will be required in order to renew operations at the various factories and works in which Welsh steam coal is largely used. From the other foreign countries there is scarcely any change to note in the demand. Quotations remain low. House coal proprietors are doing a moderate business. The Merthyr Dale Colliery, in the Aberdare Valley, is announced for sale.

An important Conference has been again held by the colliers of the district in regard to the Mines Inspection Bill. Delegates from many of the collieries met at Pontypridd, but as only a short notice of the meeting had been given, the attendance was not so large as it might be. The men having understood that the Bill would be brought forward by the Home Secretary on Monday, they deemed it urgent to take immediate steps in the matter. Considerable dissatisfaction was expressed in regard to many provisions of the measure, and the meeting decided upon sending a deputation to London. Availing themselves of a promise made to them by Mr. R. Petherill, M.P., to defray the expenses of two men, a deputation of four was appointed, two of whom were to go to London at the expense of the colliers.

No much has yet been said at the ironworks in regard to the proposed reduction of wages, but there is no doubt the announcement came upon the men rather by surprise, and there is a strong hope entertained that such improvement will take place in the iron trade before the month expires as will obviate the necessity on the part of the ironmasters to make the reduction they have given notice of. The ironmasters will, undoubtedly, resort to the course with considerable regret, but taking into consideration all the depressing circumstances of the last four or five months, it is matter for congratulation that the step was not taken three months ago.

At the Monmouthshire Wagon Company meeting, on Wednesday (Mr. Crawshay Bailey in the chair), a dividend at the rate of 5½ per cent. per annum was declared. The concern was shown to be in a satisfactory state.

The trade returns of the local ports for the last month show more satisfactory results than might have been expected.

At the Bristol and South Wales Wagon Company meeting, on Wednesday, the directors' report recommended the usual dividend of 10 per cent. per annum.

Mr. H. Huxham, of Swansea, has been appointed, it is understood,

secretary to the South Wales Institute of Engineers, in the room of Mr. E. Braden, who has resigned in consequence of ill health.

The arrivals at Swansea include—the Rose of England, from Caldera, with 100 tons of silver ore, 94 tons of silver regulus, and 406 tons of copper regulus, for H. Bath and Son; the Louise and Angel, from Bilboa, with 130 tons of iron ore, to order; the Esmeralda, from Bilboa, with 180 tons of iron ore, for H. Bath and Son; the Florence, from Carrizal, with 530 tons of copper regulus, for H. Bath and Son; the Ange Gardien, from Bilboa, with 158 tons of iron ore, for Holway Brothers; the William and Annie, from Huelva, with 336 tons of sulphur ore, to order; the Jenno Elona, from Bordeaux, with 100 tons of pit-tinifer, for Polingdestre and Mouster; the Drydale, from Bilboa, with 158 tons of iron ore, for Holway Brothers; the Favorite, from Bilboa, with 350 tons of iron ore, for T. Wood and Co.; the Maggie, from Bilboa, with 210 tons of iron ore, for the English Copper Company.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Feb. 16.—The prospects of peace, and of an amicable termination of the Black Sea Conference, are imparting a more hopeful feeling to the Iron Trade. The mildness of the weather also gives hope of the early opening of the northern ports, and already some continental orders to be shipped to the Baltic have been given out. There is also a moderate amount of orders for the United States, and the strike of the colliers in the State of New York, should it last, will reduce the make of iron in that country, and will lead to more being ordered here. Best Staffordshire pig-iron continues in fair demand, the high price of hematites strengthening this material.

The Hardware Trades are rather quiet as a rule, but there is a tendency to improvement. The writer on these trades in the *Wolverhampton Chronicle* states that Mr. J. Walker, of that town, has invented a new machine for the manufacture of railway spikes. On the bed is fixed a central block containing a forming die, on either side of the latter being a carriage. These carriages convey tools, which by means of cones, propelled by driving gear, are advanced to the forming die, so as to give proper shape to the head of the spike. A steam-hammer is placed over the central forming die. He adds that Mr. T. P. Jones, of Rowley, has secured an important contract from the home Government, which comprises some heavy cables for iron-clad vessels, and also for mooring purposes.

On Friday last there was an explosion of gas in the New Buffery Colliery, near Dudley, belonging to Messrs. Howe and Mason. From 30 to 40 men were down the pit at the time, but, happily, most of them were at a distance from the place where the explosion took place, and escaped unharmed; six, however, were badly burnt, and two in a very serious manner. Shaw, the underground manager, was one of the injured men. He took another man, named Waterhouse, to a waste, in order to point out to him work which required to be done. Here Waterhouse, with remarkable ignorance or recklessness, raised his light to one of those "pot-holes" in the roof in which gas is often found, and before he could be checked the gas fired, and he was one of those most seriously injured. Shaw says he had been twice in the same place during the morning, and found no trace of gas.

It is satisfactory to state that the local banks report favourably of the business of the past half-year, and the directors of the Midland and Gloucester Wagon Companies both declare an interim dividend at the rate of 10 per cent. The South Staffordshire Waterworks Company, which has been paying a low dividend for some years, appears to be looking up, and for the second half of 1870 pays at the rate of 4 per cent., and carried forward a larger balance than previously.

BREACH OF COLLERY RULES.—At the Newport Petty Sessions, on Tuesday, Daniel Humphreyson was charged with committing a breach of a certain colliery rule, by not examining and reporting upon the condition of the pit before allowing the workmen to descend. Mr. Hodges appeared for the Lilleshall Company, who prosecuted, and stated that the case was not one of gross carelessness, although an accident had resulted from it, whereby three boys were burnt by an explosion, and one had since died. It was the duty of the defendant to make a proper examination of the pit and report upon its condition every morning before the men went down. This he neglected to do, but there was great cause for his unwilling to do so, inasmuch as the man had been there for several years, and well knew the state of the pit, and he had never seen any appearance of gas. Certain portions of the works had undergone alterations, and those alterations had caused gas to arise in the pit. Under those circumstances the company did not wish to press the case against the man, believing him not to have been guilty of such gross carelessness as is frequently found in cases of that character. The company were, however, compelled to bring the case before the magistrates. The defendant was fined £1, and 8s. 8d. costs.

The Dudley Correspondent of the *Wolverhampton Chronicle* writes:—

The condition of the Iron Trade of this district still continues comparatively inactive, but not without some signs of improvement. During the last week some tolerably good orders have been received for first-class iron. The works west of Dudley, generally speaking, are doing "five turns" per week, and, upon the whole, there is not much to complain of. The workmen are remarkably quiet here, and now that the Union on the Brierley Hill side is broken up there seems to be much more unanimity between them and their employers than has existed for many years past; they seem to put more confidence in their masters than they did, believing that if they leave the question of wages in their hands they will in the long run be better off than they will by other hearkening to paid delegates or submitting any differences which may arise to arbitration. This is a state of things much to be desired, and is the result of the men seeing that their masters have evinced a disposition to deal justly with them. The demand for pig-iron continues steady, and prices for all mine iron are well maintained. There are some fair pigs produced in the district, combining a portion of mine and a modicum of flue clinker, and are selling at from 32. to 32. 2s. 6d. per ton, but inferior sorts, made chiefly from clinker, and selling at lower rates. The pig-makers are acting cautiously as to making contracts for forward delivery, knowing well that there is every indication of a rise on the conclusion of the Franco-Prussian war. The demand for thick coal is still large, and the output, though great, is not equal to the requirements for the works and domestic consumption. A considerable influx of boats has occurred at the various collieries since the breaking up of the frost, and the supply of coal to them has been large, but there is some fear that even now the transit of coal by water may be interfered with by a return of severe weather, which would soon close up some of the canals again. The market for white ironstone and gabbro keeps active, and prices remain firm, at 12s. 6d. per ton for the former, and 13s. 6d. for the latter, short weight of 2240 lbs. to the ton. When sold at long weight the price is proportionately higher. These prices refer to the sale of these ironstones in their raw state; when calculated they realise about 6s. per ton more. The Dudley chain and anchor-smiths report business somewhat quieter. Mr. T. P. Jones, of Rowley, has secured an important contract from the home Government, which comprises some heavy cables for iron-clad vessels, and also for mooring purposes. The nail trade is, on the whole, in a more satisfactory condition than described a little while ago, and the demand for fenders and fire-irons, although still far from brisk, shows some indications of early improvement.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Feb. 16.—The ironworks and collieries throughout Derbyshire have undergone no alteration, so far as regards trade, during the past week. There is a large output of pig-iron, and the quantity appears likely to be increased by the blowing-in of some new furnaces. A steady business is being done in manufactured iron, and the foundries are kept fairly going. About an average tonnage of House Coal is being sent to London, but the reduction of the rate so far has not had the effect of increasing the demand from the Derbyshire collieries; on the contrary, a much less tonnage of coal was sent to the metropolis from the leading collieries during January than there was in the previous month. The subscription in aid of the widows and children of the men killed by the explosion at the Renishaw Colliery, Eckington, is proceeding very satisfactorily. Upwards of 2000/- have already been given, towards which the working collieries of Staveley, Clay Cross, and other places, have subscribed liberally.

The heavy branches of the Sheffield trade are now very active. The heavy armour-plate mills are being fully worked, and are likely to be so for some time, there being some large orders on home account. Although at least two months will elapse before shipments to Russia will be resumed, still the makers of rails and railway material are fully as busy as they have been, and the season promises to be an active one in that important branch of our manufacture. The wire-mills are also brisk, more especially on land and submarine telegraph account. It appears that some modifications are about to be made in the duties charged for steel goods by the American Government, but it is not expected that they will be of a serious character, or such as will impede the large business doing with that country. The general cutlery branches are looking up, and some fair orders have been sent in by home travellers. There is every appearance of a strike taking place in the fork-grinding trade, but it affects a comparatively small number of men.

The works in the Rotherham district are rather busier than they have been. There are some good contracts for rails and plates, and the engine works at Meadow Hall are engaged in making some shields on Government account, the plates being received from the Parkgate Iron Company. The collieries are also doing well, more particularly in house-coal. At Thorncleiffe and Chapelton the foundries are kept well going in pipes, stoves, and other castings. The collieries belonging to the former are now in full work, and raising a very large tonnage of coal.

In the Barnsley district there has not been much change, the iron-works doing a steady trade. The reduction of the rate, however, has had the effect of largely increasing the tonnage of coal from South Yorkshire to London by the Great Northern. But how long the present state of affairs will last no one can say, consequently colliery proprietors are in a state of uncertainty, which is far from being pleasant or reassuring, as no one would enter on a contract for any length of time under existing circumstances. The proposed coal railway from South Yorkshire, via the Great Eastern, to London is now looked upon with much favour, and as all the great navy departments have been consulted with it will be prosecuted in Committee of the House of Commons with vigour. The parties interested are sanguine that it will be carried, although aware it will meet with a very strong opposition from existing companies. More than anything else would the line benefit the colliowmen between Barnsley and Rotherham, whilst at the same time it would improve the position of the Great Northern in the development of the goods and passenger traffic. At present a serious loss is entailed by the want of sufficient locomotive power to take coal from the colliery-sheds, and train loads are left for two or three days at a time where they have been loaded. In Engine-Coal there is a moderate business being done with Lancashire. There has been a rather better enquiry for late for Steam Coal for Hull, but there had not been much change with regard to Grimsby. It is likely, however, that the lowering of the rate to London will have the effect of bringing the steam coal of South Yorkshire into notice for shipment from the Thames, and already several coalowners have been asked as to the terms on which it could be supplied. As both the house

and steam coal in the Barnsley seam are got together, the advantage of finding a good market during the winter months would be a very great benefit. During the summer all the steam coal raised is easily sold, whilst in winter, as a rule, a good deal has to be stacked, until the shipping season commences to the North of Europe. Coke is still in very good request, and there is no difficulty in getting stocks.

THE COAL TRAFFIC BY RAILWAY TO LONDON.—The competition between the Great Northern and the Midland Railway Companies with regard to the London traffic is still as active as ever. The reduction made by the one company has been followed by a similar reduction by the other. The Great Northern has just issued a special rate list for coal going from South Yorkshire to London, and other places on their line. The rate for coal from the district named in King's Cross or Holloway, into drags or barge, which up to the close of the year was 8s. 4d. per ton, is now reduced to 6s. 1d., a reduction of no less than 2s. 3d. per ton. That this must involve a serious loss may be inferred from the fact that the rate to Grantham is exactly the same as it is to London, whilst it is 2s. per ton more to Hitchin. The Midland Company have also issued a circular with regard to the rate, as follows:—"Midland Railway Company, General Manager's Office, Feb., 1871: Finding some uncertainty prevails as to the date from which the company decided to make the further allowance of 8d. per ton off the rates for the carriage of coal from collieries on the Midland Railway to the London district and south of the Thames, necessitated by the further reduction announced in the Great Northern Company's circular of Jan. 12, I am instructed to inform you that the allowance will be made from Jan. 16, the date named by the Great Northern Company for their reduction to come into operation, in order to preserve, as hitherto, the agreed difference in the through rates for the South Yorkshire collieries and your collieries on the Midland line respectively." A reduction of 2s. 3d. per ton on the rate paid up to the close of last year will be a loss monthly of about 3200/- to the Great Northern, and to the Midland of about double that sum, so that both companies are working the coal traffic at a very serious loss.

COST OF STRIKES.—The last balance-sheet of the South Yorkshire Miners' Association shows that the expenditure of the society for the two years ending in December last was 46,776/-, and of this amount no less than 40,000/- was paid away to men on strike or locked out. The Thorncliffe men, who were locked out, received more than half the entire sum thus appropriated.

THE PATENT LAW QUESTION.

At last there is a gleam of hope for the inventor. A Member of Parliament, who is eminent as a Queen's Counsel, entertains impartial views on the subject of the Patent Laws, and is with a friend of the working people. Mr. HINDE PALMER has given notice in the House of Commons that he will, early in March, move for leave to bring in a Bill to amend the law on patents for inventions, and although he cannot hope to walk over the course, seeing that Mr. SAMUELSON and Mr. MACFIE have given notice of motions for committees of enquiry into the working of these laws, yet, if the question is mooted this session, and be dealt with by Mr. HINDE PALMER in the way he appears disposed to deal with it, a change beneficial for inventors may confidently be hoped for.

Even with regard to Mr. MACFIE we are not without some hope, for there is not in his views so much to be reproached by the friends of inventors as most persons usually consider to be the case. Like the popular saying regarding the arch enemy of mankind, he is "not so black as painted," for his propositions, if capable of practical realisation, in regard to his system of money prizes, would afford a most acceptable recompence to many a poor inventor; and could he be induced to place his scheme in concurrent operation side by side with the Patent Laws, we cannot help thinking that the present handsome Annual Surplus Fund of the Patent Office might thus be beneficially applied as a means of remunerating those inventors who are willing to relinquish their exclusive rights to the use of their inventions, by opening them to unrestricted adoption by the public. By such a course neither Mr. MACFIE nor his opponents would sacrifice the principles they respectively uphold, for after all the real point at issue is—What is the best method of affording to inventors due encouragement to publish and develop their inventions? That the publication and development of new inventions are desiderata no one but a madman will deny; and by the Patent Laws and Mr. MACFIE's scheme of prizes being worked side by side the effect of each scheme might be practically tested so that hereafter statesmen might be enabled to deal with the matter aided by practical tests, instead of proceeding to revolutionise our existing laws on the unsupported hypotheses of those who hold extreme views on free trade. Of course, we are well aware that the practical realisation of Mr. MACFIE's scheme is surrounded with many difficulties, which he must be prepared to grapple with before any use whatever can be made of it; but as he is astute and persevering it is not improbable he may at last succeed in removing these difficulties.

As regards Mr. HINDE PALMER's propositions for the amendment of our Patent Law, we are given to understand that, although in form simply amendments of the Act of 1852, they are likely in practical effect to prove most important reforms in the operation of this branch of the law, for they not only affect the constitution of the Patent Commission, and the functions of the Attorney and Solicitor-Generals with the view to render the proceedings for obtaining Letters Patent more satisfactory than as now existing, but they also deal with the questions of indefeasible patent rights and compulsory licenses in certain cases. Whether Mr. PALMER intends efficient preliminary examination to form part of his system we have not been able to learn; we trust it does, or at all events that some guarantee is to be obtained before a patent is granted that it is not for a so-called invention of something which is notoriously in public use, or already patented. It is really monstrous that the law should encourage unscrupulous patent agents to urge on poor but enthusiastic inventors to spend their last penny in patenting things they cannot legally secure. If preliminary examination into the novelty of the invention be not adopted, at all events the suggestion should be—made long ago in our columns by our correspondent, Mr. F. W. CAMPIN, the barrister—to the effect that every applicant for Letters Patent should be called upon to make strict enquiry into the novelty of his invention before any patent grant be issued, and that opportunity for real bona fide opposition to the issue of the patent be afforded to all interested before granting the patent by inspection of the provisional specification being allowed to all persons intending to oppose at some time after the notice to proceed, and before the time for entry of opposition—the present blind man's buff game is a ridiculous farce. We hope that inventors will not be left without protection against such oppressive action of the law as that which occurred in the case in *re BATES and REDGATE*, where the first applicant was defeated by the second. Surely anyone applying to complete his patent out of the usual course might be required to give notice to all prior applicants before he obtains his patent.

These and many other points we feel sure Mr. CAMPIN could readily deal with, and we hope he will be personally consulted in the matter before any change in the law is made.

GEOLOGICAL SOCIETY OF LONDON.—At the annual general meeting of this society, held yesterday, the financial statement showed a very satisfactory result, and there has been an increase in the number of "Fellows." The officers elected were—

PRESIDENT.—Joseph Prestwich, F.R.S.

VICE-PRESIDENTS.—Sir P. de M. G. Egerton, Bart., Prof. T. H. Huxley, Sir Charles Lyell, Bart., Prof. John Morris.

SECRETARIES.—John Evans, F.R.S., David Forbes, F.R.S.

FOREIGN SECRETARY.—Prof. D. T. Ansted, M.A., F.R.S.

TREASURER.—J. Gwyn Jeffreys, F.R.S.

COUNCIL.—Prof. D. T. Ansted, W. B. Carpenter, M.D., William Carruthers, W. Boyd Dawkins, Prof. P. Martin Duncan, Sir P. de M. G. Egerton, Bart., John Evans, David Forbes, J. Wickham Flower, Capt. Douglas Galton, C.B., R. A. G. Godwin-Austen, J. Whitaker Huile, Prof. T. H. Huxley, J. Gwyn Jeffreys, Sir Charles Lyell, Bart., C. J. A. Meyer, Prof. John Morris, Joseph Prestwich, Prof. A. C. Ramsay, R. H. Scott, M.A., Prof. J. Tenuant, Rev. Thomas Whitson, Henry Woodward.

The Wollaston Medal was awarded to Prof. Ramsay, in recognition of his valuable services to physical and stratigraphical geology, and with special reference to his numerous original geological researches relating to Wales and other districts. The balance of the Wollaston Fund was given to Mr. Etheridge, to aid him in prosecuting his work on British Fossils.

The address was founded on the recent investigations in oceanic life with reference to its teachings as to the relation between the deposits now forming in the bed of the Atlantic and the cretaceous strata. After referring to the modern appliances which enabled these researches to be carried on with more satisfactory results than previously, he pointed out the great proportion of cyclostomes and foraminifera in the Atlantic ooze. Of these forms the chalk is estimated to contain one million in a cubic inch. Alluding to the monoliths, he mentioned that the species had a greater general resemblance to the newer tertiary than to those of the chalk, although many of the genera are identical with those found in the latter formation. He further alluded to the cretaceous strata passing under the Atlantic in the West of Europe, and he inferred from these and other facts, which he recapitulated in an elaborate and able address, that the bed of the Atlantic had been under deep water since the cretaceous period, and

that the modern ooze is nothing more than a continuation of those deposits of which the lofty chalk cliffs of England are the most conspicuous feature.

THE COPPER TRADE.

Until quite recently it was a habit of the leading metal brokers to entertain their clients at the beginning of each year not only with a resume of the past, but also with the prospects of the metal markets for the year just commencing. In vain, however, have we examined the annual copper reports before us for any information on the latter point; and we find most of them fail to give even an estimate of the coming supplies, whilst they are totally silent on the probable demand. This seems not a little strange, as one might naturally expect in these days of rapid and frequent communication, not only with the producing but also with the consuming markets, such estimates might be made as would be a fair forecast of the future of such a staple article as copper. It is, therefore, only possible to attribute the omission to one of two causes—either the brokers hesitate to anticipate events at a time when the map of Europe is being re-modelled, and the needs of war are substituted for those of peace; or having failed so utterly in their former prophecies, they shrink from again exposing themselves to the ridicule of the metal world.

However, as the want is none the less called for alike by miners and merchants, let us endeavour to give the requisite information; but, in doing so, we must carefully avoid the error of those who would fix a minimum or maximum price for copper for the year we have now entered on, striving rather to lay before our readers such data as will enable them to draw their own conclusion.

By no juggling can we help the natural division of the subject into supply and demand, however terrible these much-abused words may seem, and the full comprehension of either of which in the case in point is more work than enough for one man not directly engaged in the trade of buying and selling copper. At the same time, for convenience sake, we will speak—

- 1.—Of the actual stocks of copper here.
- 2.—Of the quantities likely to be imported this year.
- 3.—The demand constant and the demand progressive and new.

The stock of copper in England and Havre is together greater than it was ever before known to be, and it has been accumulating steadily for years past. Roughly we may call it twice what it was five years ago, and the following figures, taken from one of the wharfingers' circulars, at Swansea, will show how surely the increase has gone on even in the last twelve months:—

Stock of Chile copper in Great Britain and Havre, Jan. 1, 1870	....	Tons 25,200
" fine foreign and English in London,	....	" 5,700
Total	.....	30,900
Stock of Chile copper in Great Britain and Havre, Jan. 1, 1871	....	Tons 31,700
" fine foreign and English in London,	....	" 4,000
Total	.....	35,700

It may be fairly urged that this augmentation is due to the diminished stocks held by makers, as also to the entire closing of the French markets during the last six months. But a comparison of the present with the stocks of either three, four, or five years ago would show identical results; and as regards the question of a lessened stock held by makers or manufacturers, this must be looked upon as an inevitable consequence of an importation of one-half of our supply of copper in the metallic form—a change which enables the manufacturer to get his supplies in twenty-four hours, whilst it formerly took more than that number of days to procure the same article from the smelters' works. The same argument applies to smelters' stocks. In short, it is impossible to escape the inevitable fact that the stock is excessive, and it is no sound statement that because the stock is firmly held at a time when money is cheap, and loans on such security as dock warrants easily arranged, it is not too large, or that the same holders may not sell, either from compulsion, in the case of dear money, or from finding a more profitable form of investment in a general revival of trade.

Let us now pass on to the second point we proposed to consider—the imports for the current year, and the yield of our own mines. First in the list of copper-yielding countries stands Chili, and experience teaches us that from her mines, including those on the west coast of South America generally, the annual yield is nearer 50,000 than 40,000 tons of fine copper. Report states that many of the mines are being stopped as unremunerative, but still it comes, and one who has had great experience in Chilian mining estimates this year's exports from that country at 45,000 tons. No great falling off here. Next in importance come the Australian mines, the chief of which, despite the late and present low prices, manage to pay large dividends, and whilst a mine pays, it would be simply madness to expect a diminished supply. The same remark applies to the Cape mines, only just beginning to be developed. Also to the Newfoundland diggings, or mines. And lastly, as to foreign sources, the great quantity of copper extracted from pyrites—being only a product of secondary value as compared with the full value of the ore—is not likely to be affected much by the price of fine copper, but by the demand for sulphur, for which the ore is chiefly worked. In fact, England is likely to be the only defaulter in the supply of copper, the Cornish ticketings clearly showing that at present prices our copper mines cannot compete with the more productive deposits of other countries.

To sum up, then, the question of supply, we have a stock here larger than ever yet known, a probable supply not many thousand tons short of that imported last year; thus, from this point of view, there is nothing to encourage the hope of a great rise in price. If, however, there is little which is promising to the miner, who is in reality the man most interested in the price of copper, when we review the market from the side of supply, there is much to be urged on the opposite side of the question which is most hopeful. At the same time a full appreciation of the demand for copper is not an easy matter, as it is often a most difficult thing to separate the large transactions reported into the dealings of speculators and the purchases of bona fide consumers. It is also most unsafe to accept without analysis the business generally reported—for example, when the French rollers were large buyers they were often buying as speculators, and not as manufacturers, and the miner anticipating from the purchases made an improving market was continually disappointed.

But to return to the real demand. No one can gainsay the fact that the low price at which copper has now for some years been sold has increased its consumption enormously. Many uses of it in a pure or alloyed form are constant, and almost irrespective of price. Such are the sheathing of ships, the requirements of India and China, &c.; but in all the ornamental uses of copper and brass the price is an important element, and few even of those who deal in it are aware how important this branch of the trade is, because it is most apparent in those countries to which we export copper.

Let us speak a little in detail as to the more or less constant outlets

IN LIQUIDATION.
MINE PLANT and MACHINERY at LLWYNMALES MINES, CARDIGAN-SHIRE, situated 12 miles from ABERYSTWITH, close to the Strata Florida Station on the Milford and Manchester Railway.

MESSRS. W. H. WILLIAMS AND CO. have received instructions with the consent of the Mortgagors to OFFER FOR PUBLIC COMPETITION, at the Mines, as above, on Thursday, February 23d, 1871, the PLANT MACHINERY, MOBILE ERECTIONS, and other EFFECTS in and about the said mines, which will be sold without reservation; including a 10 horse power horizontal STEAM ENGINE and BOILER complete, driving gear, drawing machine, cravvines, three sets pump work complete, 1300 yard pumping rods, pulleys, and wire ropes, chais, carpenters' and smiths' tools, wheel barrows, and all the other plant usual for surface and underground work. Also a quantity of merchant iron, and several movable erections.

Sale to commence at half past Eleven o'clock.
Particulars may be obtained of Messrs. PRESS and INSKIP, Bristol, or of the Auctioneers.—Dated Exchange, Bristol.

NOTICE.—The EXTENSIVE COLLIERY in the neighbourhood of GLASGOW, advertised for sale, HAS BEEN SOLD.

D. G. HOEY, C.A.

119, St. Vincent-street, Glasgow, 14th February, 1871.

CANNOCK CHASE COAL BY CANAL AND RAILWAY.

THE COMPANY SEND COAL BY RAILWAY, in trucks, TO ALL STATIONS, and LOAD CANAL BOATS at their extensive wharves on the Anglesey branch of the Birmingham Canal, adjoining the colliery; and also at Hesdene Basin, Cannock.

Also SUPPLY best LYCOCK'S GARESFIELD FOUNDRY COKE, FIRE BRICKS, and CLAY RETORTS, free on board ship, Tyne Dock, Newcastle-on-Tyne.

Canal gas coal, 15,000 feet of gas per ton. Illuminating power of gas in standard candles, 32½ candles.

For prices, apply to JOHN N. BROWN,
ANGLESEY CHAMBERS, NEW STREET, BIRMINGHAM.
LONDON OFFICE, 455, NEW OXFORD STREET.

PHOSPHATE OF LIME LANDS FOR SALE.

THE UNDERSIGNED OFFERS FOR SALE THE MINERALS on Lot No. 19 in the Sixth Concession of the Township of BURGESS, County of LANARK, CANADA, being one of the best of the Canadian Phosphate Lots.

The first thousand tons can be laid down at Montreal at 25s. sterling per ton.

The asphalte will contain from 80 to 90 percent, of phosphate of lime. Terms £2000 sterling, or a contract will be taken for the delivery of phosphate in Montreal. Apply to—

ARTHUR J. MATHESON or JAMES H. BELL, Perth, Canada.

Perth, Canada, January 10, 1871.

A FESTINIOG SLATE QUARRY ON SALE.

ON SALE, BY PRIVATE TREATY, owing to the death of the Proprietor, 46-50sds of the BWLCHYSLATTER SLATE QUARRY, situated in the parish of FESTINIOG, and in the centre of that well-known slate district. The quarry produces slates of first-class quality, of which there is apparently an inexhaustible supply. It is provided with the requisite plant for being properly and profitably worked, and is only parted with owing to the death of the late proprietor. It is situated close to the Portmadoc and Festiniog Railway.

For particulars, apply to Mrs. WILLIAMS, Bennarfawr, Dwyfryn, Carnarvon.

CAMEL SLATE QUARRY, NEAR WADEBRIDGE, CORNWALL.

TO BE SOLD, BY PRIVATE CONTRACT, the above QUARRY, which has been in operation nearly twenty years, together with the whole of the VALUABLE PLANT, BUILDINGS, and QUAY. The business, which affords employment at present to about 100 hands, is capable of great development by a gentleman who could give it his personal superintendence, there being a great demand for the class of goods manufactured at these works. Vessel can ride safely in all weathers.

For terms, which are easy, apply to Mr. WILLIAM BOOTH, Slate Merchant, Union-street, Plymouth.

TO BE SOLD, OR LET, an EXTENSIVE MINE, situated between STAVANGER and BERGEN (Norway), yielding SULPHUR and COPPER PYRITES—analysis of the latter, 9 per cent.

The mine was opened a short time ago, and examined by a Royal Norwegian Swan Mine Inspector, who has declared in writing that the mine will at once yield a profitable produce. The situation is excellent, close by the sea, with a good harbour.

Apply to the owner, C. B. SVENDESEN, Stavanger, Norway.

FOR SALE, in consequence of the death of the late proprietor, a SILVER-LEAD and BLEND MINE, in FIRST-RATE POSITION, situated on the RHINE, and from which for years past large profits have been realised. At present in full work, and provided with complete machinery and working staff.

Address, S. GRAY, Mining and Civil Engineer, Cologne, Prussia.

**TO IRONMASTERS, AND MANUFACTURERS OF SUPERIOR
PIG-IRON.**

ADAPTABLE FOR BESSEMER STEEL, &c.

FOR SALE, BY PRIVATE TREATY, a MINE of MAGNETIC IRON ORE, yielding from 60 to 65 per cent. of superior cast-iron in the blast-furnace. The property consists of 150,000 square metres, and is capable of producing very considerable quantities of ore. It is four kilometres distant from the coast. Freight to South Wales and North-Eastern ports would be about 12s. per ton. Address, "Box 5," Swansea.

TO BE LET, ON LEASE, for a term of years, SEVERAL ACRES of LAND, suitable for MANUFACTURING PURPOSES, advantageously situated on the south bank of the River Tyne, about two miles below Newcastle-on-Tyne, and within a quarter of a mile from the North-Eastern Railway. There is a good quay frontage, with deep water.

Apply to Mr. T. S. BRAMWELL, King-street, quayside, Newcastle-on-Tyne.

**SECONDHAND MINING MACHINERY FOR SALE
IN FIRST-RATE CONDITION.**

PUMPING ENGINES, of various sizes,—viz., 80 in., 70 in., 60 in., 50 in., 40 in., 30 in.

WINDING ENGINES, STAMPING ENGINES, STEAM CAPSTANS, and CRUSHERS of various sizes.

A NUMBER OF BOILERS.

PITWORK of all descriptions, and all kinds of MATERIALS required for MINING PURPOSES.

TO BE SOLD, AT MODERATE PRICES.

The 80 in. is nearly new, and, with several of the other engines, can be guaranteed of superior make and modern design.

For further particulars, apply to—

MESSRS. HARVEY AND CO.,
ENGINEERS AND GENERAL MERCHANTS,

HAYLE, CORNWALL,

AND HAYLE FOUNDRY WHARF, NINE ELMS, LONDON,

CITY OFFICES (GRESHAM HOUSE), 23½, OLD BROAD STREET,

PUMPING and other LAND ENGINES and MARINE STEAM ENGINES of the largest kind in use, SUGAR MACHINERY, MILLWORK, MINING MACHINERY, and MACHINERY IN GENERAL.

SHIPBUILDERS IN WOOD AND IRON.

THE PATENT PNEUMATIC STAMPS

May be SEEN AT WORK at HAYLE FOUNDRY WHARF, NINE ELMS, by previous application at either of the above addresses.

FOR SALE,—THE UNDERMENTIONED ENGINES:

ONE 50 in. cylinder PUMPING ENGINE, with ONE BOILER.

ONE 24 in. cylinder ROTARY STEAM ENGINE, with or without BOILER, wrought iron fly-wheel shaft, and 10 ton fly-wheel.

ONE 12 in. cylinder ROTARY STEAM ENGINE, with ONE 6 ton BOILER.

THREE Cornish BOILERS, from 10 to 12 tons each, in excellent condition.

Also, several Cornish CRUSHERS, of various sizes.

A 60 foot WATER WHEEL, with hammered iron round shaft, cast-iron sockets, rings, &c.

For further information, apply to—

W. MATHEWS, ENGINEER, TAVISTOCK.

Tavistock, Feb. 3, 1871.

FOR SALE, a high-class new 14-horse power double-cylinder PORTABLE STEAM ENGINE, with suitable gear, for the threefold purposes of Winding, Pumping, and Crushing.

NEW PORTABLE STEAM ENGINES, 3 to 25-horse power, on advantageous terms for cash or deferred payment, if desired.

SECONDHAND PORTABLE STEAM ENGINES, of the best makers, to be sold cheap, all in excellent condition, some quite equal to new.

Apply to—

HARROWS AND STEWART, ENGINEERS, BANBURY, OXON.

FOR SALE, BY PRIVATE CONTRACT, at PAR CONSOLS,

Par Station, CORNWALL, and close to Par Shipping Harbour.

ONE 80, and ONE 72 in. cylinder PUMPING ENGINE, and BOILERS.

24, 18, and 15 in. WINDING ENGINES and BOILERS.

8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, and 20 in. PUMPS.

And top-door pieces; plunger poles; rod plates; and a large quantity of other useful MINING MATERIALS.

Apply to Capt. PUCKLEY, St. Blazey, Cornwall.

SECONDHAND MACHINERY ON SALE.

Particulars requiring secondhand ENGINES, BOILERS, and MACHINERY of every description and size, and for all purposes, should apply to FREDERICK MIRLS, Engineering Valuer and Agent, St. Ann's-square, Manchester, who has the contents of several engineering concerns for disposal (piecemeal).

Particulars in "Monthly Register," free by post.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WEST BRITON MINING COMPANY.—By direction of His Honor the Vice-Warden, Notice is hereby given that, on Monday, the 27th day of February instant, at the Registrar's Office, at Truro, in the county of Cornwall, at Eleven o'clock in the forenoon, this Court will proceed to MAKE A CALL OF THIRTY-FIVE SHILLINGS PER SHARE on all the contributors of the said company, settled on the list of Contributors under Class A.

All persons interested therein are entitled to attend at the time and place aforesaid, to offer objections to such call.

FREDERICK MARSHALL, Registrar.

Dated this 15th day of February, 1871.

EAST CARN BREA MINE, REDRUTH, CORNWALL.

SPARE MINE MATERIALS FOR SALE, BY AUCTION.

MR. W. NICHOLL has received instructions TO SELL, BY PUBLIC AUCTION, on Wednesday next, February 22nd, commencing at One o'clock, the following

SPARE MINE MATERIALS.

Now in and upon this Mine and Wheal Union, the property of the East Carn Breas adventurers, consisting of—

A 40 in. PUMPING ENGINE, 8 ft. stroke, with BOILER.

40 tons, 13 in. pumps.

14 in. pole, case, stuffing box and gland, H piece, &c.

20 tons, 13 and 13 in. pumps.

26 tons, 11 in. pumps.

14 in. plunger pole (new), with stuffing box, &c.

1 1/2 in. ditto (very good), ditto.

1 1/4 in. staking wind bore, door piece, and door.

2 pairs caps.

Balance bob, &c., complete.

Several pairs of rod plates, rod pins, &c.

Old scrap iron.

One Lot, and if not so sold they will be immediately sold in lots to suit the convenience of purchasers.

The whole of the pitwork is drawn to surface, and may be viewed, with the machinery, on application to Mr. GEORGE LIGHTLY, Redruth; or to the agents on the mine, which is situated within a quarter of a mile of a railway station.

Any further information may be obtained on application to Mr. WM. NICHOLL, Auctioneer and General Agent, Fore-street, Redruth.

Dated February 15th, 1871.

SALE BY AUCTION.

MRS. JOHN WHITE, of 12, Cases Street, Clayton Square, Liverpool, will, under instructions from the Liquidator of the South Barrule Slate Quarry Company (Limited), in liquidation, OFFER FOR SALE, BY AUCTION, at the Law Association Rooms, 14, Cook-street, Liverpool, on Wednesday, the 1st day of March, 1871, at Half-past One o'clock P.M., exact time, the LEASE, direct from the Crown, of the well-known

SOUTH BARRULE SLATE QUARRY.

Situate in the parishes of PATRICK and MALEU, in the ISLE OF MAN.

The grant comprises 623 acres or thereabouts, and is for a term of 21 years, from the 10th of October, 1872, at a rent of £1 per annum, and a royalty of 1 1/2d. of all slate and other stones gotten, and a due rent merging in royalty of £50 per annum.

Upwards of £20,000 have been expended in the development of this quarry, which produces excellent roofing slates for which there is a large demand in the Island.

The property is approached by good roads, and is within five miles of a shipping port. It is also well supplied with water power, and contains an extensive plough port.

The rails, wagons, machines, implements, and stock of slate will be included in the sale.

For further particulars and conditions of sale apply to Mr. J. S. JACKSON, RAM-EY, Isle of Man; Mr. JOHN CHRYSAL, Surveyor, Ramsey; to the Auctioneer; or to Messrs. POOLE and HUGHES, Solicitors, 9, New-square, Lincoln's Inn, London, at whose chambers the original lease may be inspected.

A copy will also lie for inspection at the office of Mr. CHRYSAL, Ramsey, Isle of Man.

FREEHOLD ESTATE, AT WINCHAM,

NEAR NORTHWICH, CHESHIRE, CONTAINING VALUABLE BEDS OF

ROCK SALT AND BRINE SPRINGS.

MESSERS. POTT AND NEALE WILL SELL, BY AUCTION, at the Angel Hotel, Northwich, in the county of Cheshire, on Thursday, the 16th day of March, 1871, at Two for Three o'clock P.M. precisely, in One Lot, the following VERY VALUABLE FREEHOLD ESTATE, in a Ring Fence, situate in the township of GREAT BUDWORTH, CHESHIRE, and fronting the high roads from Northwich to Warrington and Knutsford, and at present occupied by Mr. Charles Garfit, viz.,

Description. Culture. Quantity.

House, farm-buildings, stack-yard, road, orchard, and garden	Arable, &c. ..	1A. 1R. 3P.
Horse pasture	7	2 6
Big common field	10	3 4
Long common field	4	1 8
Pyde Oak and pond	Grass	3 2 29
Pit Croft and pond	Arable	1 3 18
Shippon and barn field .....	.....	8 0 36
Gorse field	Grass	11 2 25
Bottom field	Arable	8 1 6
The Meadow	Grass	6 0 24
Pear tree field .....	.....	7 1 23
Total	74	1 9

If not sold in one lot the estate will be put up in such other lots for building and other purposes as may be agreed upon at the time of sale.

The farm is distant about two miles from the market town of Northwich, and ten from Warrington, and is bounded by the estate of Lee Porcher Townsend, Esq., and the high roads above mentioned. The estate lies immediately adjacent to both canal and railway, and valuable beds of rock salt and brine springs will be found under it, thereby rendering it a most desirable investment for salt proprietors.

Possession may be given on the 25th day

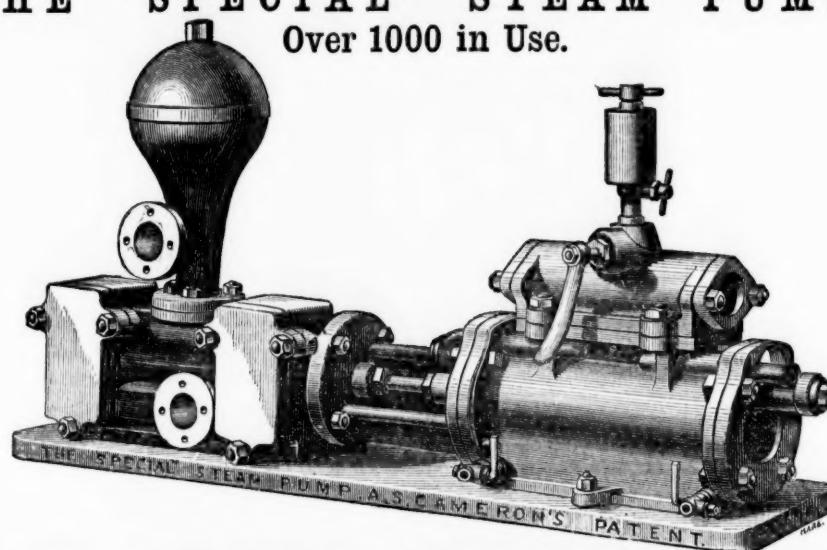
TANGYE BROTHERS AND HOLMAN,
10, LAURENCE POUNTNEY LANE, LONDON,
CORNWALL WORKS (TANGYE BROTHERS), BIRMINGHAM.

SOLE MAKERS OF
THE "SPECIAL" STEAM PUMPS.

Over 1000 in Use.

IN USE AT

The Black Boy Collieries,
 Bishop Auckland.
 The Westminster Collieries,
 Wrexham.
 The Monkwearmouth Colliery,
 Sunderland.
 The South Benwell Colliery
 Newcastle-on-Tyne.
 Messrs. Bagnall and Sons Colliery,
 South Staffordshire.
 Acomb Colliery, Hexham.
 North Bitchburn Colliery,
 Durham.
 Brancepeth Colliery,
 Durham, &c., &c.
 And numerous others.



NOTE.

Requires NO Shafting, Gearing,
 Riggers, or Belts.

All Double-Acting:

Works at any Speed, and any Pres-
 sure of Steam.

Will Force to any Height.

Delivers a constant stream.

Can be placed any distance away
 from a Boiler.

Occupies little space.

Simple, Durable, Economical.

NO FLY-WHEEL, CRANK, GOVERNORS, CONNECTING ROD, GUIDE, OR ECCENTRIC.

Supplied to H.M.'s Arsenal and Dockyards at Woolwich, Chatham, and Devonport, also for use on board H.M.'s Ships, Hercules and Monarch.
 FORTY THOUSAND GALLONS PER HOUR IS BEING RAISED 40 FEET HIGH AT MR. MCMURRAY'S PAPER MILL, WANDSWORTH, BY THE "SPECIAL" STEAM PUMP.

THE "SPECIAL" STEAM PUMP AS APPLIED TO DRAINING QUARRIES.

The engraving illustrates the "SPECIAL" Steam Pump as employed in draining quarries. At the Bangor and Carnarvon Slate Company's Quarries, in Wales, four or five of these pumps, of different dimensions, are at work, as well as at other quarries in various parts of the kingdom.

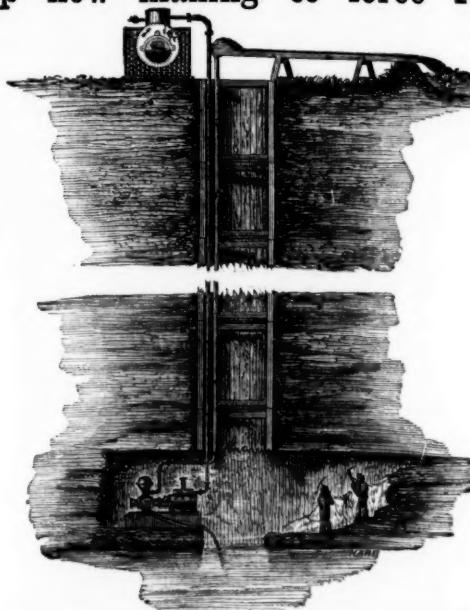
The pump being fixed in the required position, steam can be supplied by means of a felted steam-pipe from any boiler situated several hundred feet away from the pump; and although a little extra condensation would in such case take place, this system



THE "SPECIAL" STEAM PUMP AS APPLIED FOR DRAINING MINES.
 One "SPECIAL" Steam Pump now making to force 1040 feet in one direct lift.

The arrangement in the accompanying illustration shows an economical method of draining mines without the expense of erecting surface-engines, fixing pump-rods, or other gearing. A boiler adjacent to the pit's mouth is all that is necessary on the surface; from thence steam may readily be taken down, by means of a felted steam-pipe, to connect the pump with the boiler. The pump may be placed in any situation that may be convenient for working it, and connecting the steam, suction, and delivery pipes.

These engines can be fixed and set to work in a



of draining quarries is found far more economical than employing detached engines and pumps, with their cumbrous details of shafting, gearing, riggers, and belts.

The "SPECIAL" Steam Pump can be adapted to work at either high or low pressure steam, and to discharge the water to a vertical height of from 200 to 400 feet. For very high lifts, pumps with long strokes are recommended.

The pump is very portable, and can be readily lowered nearer to the water as the work proceeds.

comparatively short time, and also at a very small outlay. They are used in large mines as auxiliary engines, and will be found invaluable adjuncts in all mining operations.

To estimate the quantity of water to be raised by any given size of pump refer to the tabulated list below. It is recommended to use long-stroke pumps where the height exceeds 100 ft., so that the largest result may be obtained with a minimum wear and tear of the pump pistons and valves. The pumps are provided with doors for ready access to all working parts.

PRICES OF THE "SPECIAL" STEAM PUMPS.

Diameter of Steam Cylinder	inches	2½	3	4	4	6	6	6	7	7	7	8	8	8	10	10	12	12	14	16	24
Diameter of Water Cylinder	inches	1½	1½	2	4	3	4	6	5	6	7	4	6	7	8	6	7	8	10	12	10
Length of Stroke	inches	6	9	9	12	12	12	12	12	12	12	12	12	12	12	12	12	18	24	24	24
Strokes per minute		100	100	75	50	50	50	50	50	50	50	50	50	50	50	50	35	—	—	—	—
Gallons per hour		310	680	910	3250	1830	3250	7330	5070	7330	9750	3250	7330	9500	13,000	7330	9500	13,000	—	—	—
PRICE		£10	£15	£20	£35	£30	£40	£40	10	£50	£52	10	£57	10	£50	£55	£65	£75	£70	£80	£100

IF BRASS LINED, OR SOLID BRASS OR GUN-METAL WATER CYLINDERS, WITH COPPER AIR VESSELS, EXTRA, ACCORDING TO SIZE.
 Any Combination can be made between the Steam and Water Cylinders, provided the Lengths of Stroke are the same, thus—8 in. Steam and 3 in. Water, or
 10 in. Steam and 3 in. Water, adapted to height of lift and pressure of steam, and so on.

TANGYE BROTHERS & HOLMAN : Offices & Warehouse, 10, Laurence Pountney-lane, London, E.C.

NORTHERN DISTRICT: ALFRED STANSFIELD RAKE, ST. NICHOLAS BUILDINGS, NEWCASTLE-UPON-TYNE.
 DEPOT FOR SOUTH WALES: BANK CHAMBERS, NEWPORT, MON.—MESSRS. STEEL, RAKE, & CO.

FEB. 18, 1871.]

THE MINING JOURNAL.

139

AWARDED TWENTY GOLD AND SILVER FIRST-CLASS PRIZE MEDALS.

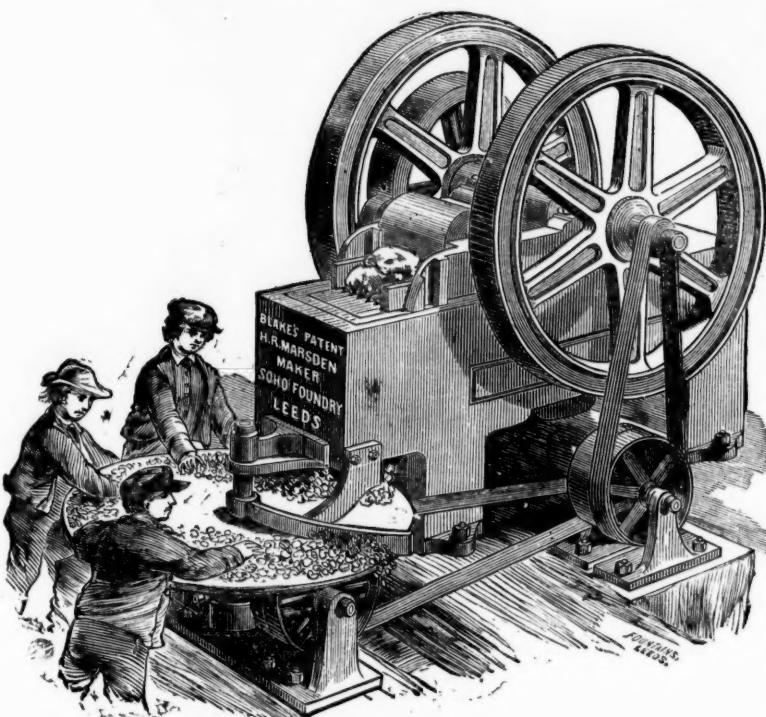
IMMENSE SAVING OF LABOUR.
TO MINERS, IRONMASTERS, MANUFACTURING CHEMISTS, RAILWAY COMPANIES, EMERY AND FLINT
GRINDERS, MCADAM ROAD MAKERS, &c., &c.

BLAKE'S PATENT STONE BREAKER, OR ORE-CRUSHING MACHINE,

FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.

This is the only machine that has proved a success. This machine was shown in full operation at the Royal Agricultural Society's Show at Manchester, and at the Highland Agricultural Society's Show at Edinburgh, where it broke 1½ ton of the hardest trap or whinstone in eight minutes, and was AWARDED TWO FIRST-CLASS SILVER MEDALS. It has also just received SPECIAL GOLD MEDAL at Santiago, Chile.

It is rapidly making its way to all parts of the globe, being now in profitable use in California, Oregon, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England. Read extracts of testimonials:—

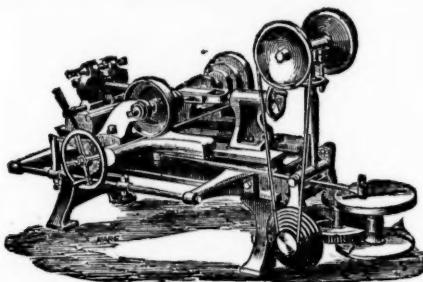


For illustrated catalogue, circulars, and testimonials, apply to—

H. R. MARSDEN, SOHO FOUNDRY,

MEADOW LANE, LEEDS,
ONLY MAKER IN THE UNITED KINGDOM.

Patent Duplex Cotter-Hole and Key-Bed DRILLING MACHINE.



The advantage of this Machine is, that the Drills are only requisite to be half the length of the Cotter-hole required to be cut, as they operate simultaneously from both sides of the object, meeting accurately in the middle, and doing the work in less than half the usual time, besides producing a smooth hole on account of short, stiff Drills being used, thus producing a much better class of work, hitherto unattainable by the Machines with one long Drill.

The Machine is made in three sizes, and often made with double set of Head Stocks, to drill both ends of a connecting rod at the same time.

CAVEN BROTHERS,
MAKERS OF EVERY DESCRIPTION OF MACHINE TOOLS,
VAUXHALL IRONWORKS, OSBORNE STREET, MANCHESTER.

A LIBERAL COMMISSION ALLOWED TO ENGINEERS, AGENTS, AND OTHERS FOR INTRODUCING THE PATENT DON LUBRICATING OIL

TO THEIR FRIENDS AND CUSTOMERS.

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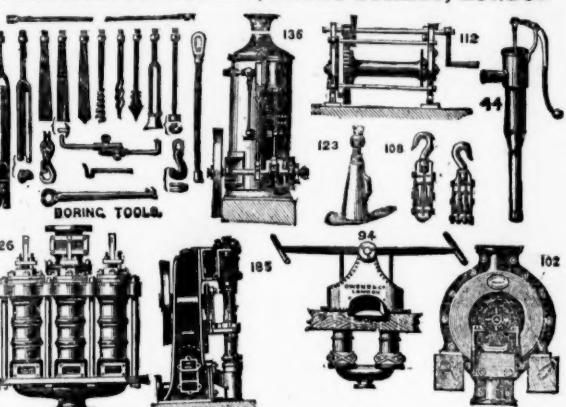
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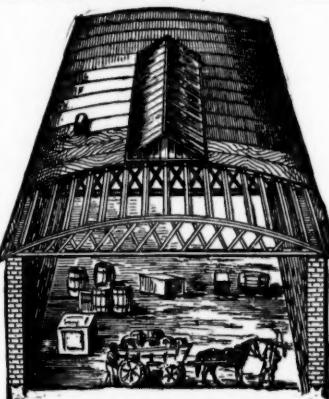
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They can be made with or without top-lights, ventilators, &c. Felt roofs of any description executed in accordance with plans. Prices for plain roofs from 30s. to 60s. per square, according to span, size, and situation.

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INDOROUS FELT for lining damp walls and under floor cloths.

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By a special method of preparation, this leather is made solid, perfectly close in texture, and impermeable to water; it has, therefore, all the qualifications essential for pump buckets, and is the most durable material of which they can be made. It may be had of all dealers in leather, and of

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The most important fact that these alarming complaints may easily be removed WITHOUT MEDICINE

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By Order of the Board,
CHARLES HURLBATT, Secretary.
Offices, 6, Queen-street-place, London, E.C.

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THE BEST AND ONLY PRACTICAL DRILL
IT DOES NOT GET OUT OF ORDER.

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SAVES £5 a day as compared with hand labour, independent of the enormous saving effected in the general expenses, such as PUMPING, VENTILATION, INTEREST OF CAPITAL, &c., from the fact of the "put out" being increased four-fold.

DRILL POINTS.—The saving in steel alone is considerable. One drill will go through 20 feet of Aberdeen granite without sharpening.

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"The increasing interest felt in this country in all that relates to the Pacific States, in consequence of the large amount of British capital invested in the Mines, will doubtless cause Mr. W. F. Rae's 'Westward by Rail' to be read by a very large number of Englishmen; and as it is as amusing as it is replete with information, no one will regret an acquaintance with it. An entire chapter is devoted to the description of the State of Nevada and its silver treasures, and in this connection Mr. Rae affords a useful hint to intending investors. His book should be carefully studied by all classes of readers, both in England and America."—Mining Journal.

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Shares.	Company.	Paid.	Price.
£100 John Abbot and Co. [L.]	£75 0 0 .. 22 20 dis.		
50 Blaenavon Iron and Steel Co. [L.]	7 10 0 ..	—	
100 Bolcock, Vaughan, and Co. [L.]	30 0 0 .. 35 36 pm.		
100 Brown, John, and Co. [L.]	70 0 0 .. 5 4 dis.		
100 Consett Iron Co. [L.]	7 10 0 .. 4 4 1/2 pm.		
100 Cambell and Co. [L.]	80 0 0 .. 18 16 dis.		
32 Ebbw Vale Co. [L.]	27 10 0 .. 9 1/2 9 dis.		
20 General Mining Association [L.]	20 0 0 .. 6 8		
18 Hopkins, Gilkes, and Co. [L.]	10 0 0 .. par. 2/4 pm.		
10 Ironmasters' Company [L.]	10 0 0 ..	—	
10 Midland Iron Co. [L.]	5 0 0 .. 22 1/2 25 pm.		
2% Mercry Steel and Iron Co. [L.]	11 10 0 .. 8 3/4 7 1/2 dis.		
4 Myndy Iron Ore Co. [L.]	3 10 0 .. 2 1/2 2 dis.		
1 Nerburda Coal and Iron	0 7 0 .. par.		
25 Palmer's Shipbuilding and Iron Co. [L.]	25 0 0 .. 1 1/4 1 dis.		
35 Ditto ditto	35 0 0 .. 1 1/4 1 dis.		
60 Parkgate Iron Co. [L.]	65 0 0 .. 3 dis. par.		
10 Patens Shaft and Axletree Co. [L.]	10 0 0 .. 5 3/4 pm.		
50 Rhymey Iron Co. [L.]	50 0 0 .. 20 18 dis.		
15 Ditto New	15 0 0 .. 5 1/2 5 1/2 dis.		
50 Shotts Iron Co.	50 0 0 .. 21 19 dis.		
100 Sheepbridge Iron and Coal Co. [L.]	55 0 0 .. 17 16 dis.		
100 Staveley Iron and Coal Co.	60 0 0 .. 40 42 1/2 dis.		
100 Ditto ditto New	10 0 0 .. 8 9 pm.		
100 Thames Iron Company	10 0 0 .. —		
5% Titanic Iron and Steel	5 0 0 .. —		
100 Vancouver Coal [L.]	6 0 0 .. 1/2 dis. par.		
100 Van Iron Ore [L.]	10 0 0 .. —		
100 Wigan Coal and Iron Co	100 0 0 .. 11 9 dis.		
75 Ditto ditto	75 0 0 .. 11 9 dis.		

THE MINING SHARE LIST

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr. Business.	Total divs. Per share.	Last paid.
1500 Alderley Edge, c, Cheshire*	10 0 0 .. —	..	..	10 6 8 .. 0 5 0 .. Jan. 1869	
600 Boscastle, t, c, St. Just	1 0 0 .. —	..	..	0 2 0 .. 0 2 0 .. Apr. 1870	
200 Botallack, t, c, St. Just	9 5 0 .. 225	220 230	..	5 0 0 .. 0 5 0 .. Feb. 1871	
2000 Bodmin, t, c, St. Just	2 10 0 .. 2%	2 1/2 2 1/2	..	2 11 0 .. 0 1 0 .. Jan. 1871	
4000 Brockwood, c, Buckfastleigh	1 10 0 .. —	..	..	0 15 0 .. 0 2 6 .. Nov. 1870	
2000 Bulwich Consols, s-t, Cardigan*	4 0 0 .. —	2 ..	..	0 9 0 .. 0 2 0 .. May 1870	
6400 Cashwell, t, Cumberland*	2 10 0 .. —	..	..	0 14 6 .. 0 2 0 .. Dec. 1870	
916 Cargill, s-t, Newlyn	16 5 7 .. 3	2 1/2 3 1/2	..	16 15 0 .. 0 10 0 .. Aug. 1869	
2450 Cook's Kitchen, c, Illogan	19 14 9 .. 20	21 2 3	..	5 6 6 .. 0 12 6 .. Jan. 1871	
867 Cwm Cyfrin, t, Cardiganshire	60 0 0 .. —	..	..	32 13 0 .. 0 5 0 .. Jan. 1871	
1220 Cwmystrith, t, Cardiganshire	60 0 0 .. —	..	..	387 10 0 .. 0 2 0 .. July 1869	
1024 Devan Gt. Consols, c, Tavistock	1 0 0 0 .. 103	..	..	177 0 .. 0 2 10 6 .. July 1869	
655 Ding Dong, t, Guylav*	45 14 0 .. —	..	..	7 10 0 .. 0 15 0 .. Aug. 1870	
1432 Dolcoath, c, t, Camborne	3 9 4 .. 6	130	..	254 2 6 .. 0 0 .. Feb. 1871	
12800 Drake Wall, t, Calstock	2 10 0 .. 1 1/2	1 1/2	..	1 3 3 .. 0 1 0 .. July 1870	
6144 East Caradon, c, St. Cleer	2 14 6 .. 5	5 1/2 5 1/2	..	14 11 0 .. 0 2 0 .. July 1871	
306 East Darren, t, Cardiganshire	32 0 0 .. —	..	..	183 10 0 .. 0 2 0 .. Sept. 1870	
6400 East Pool, t, c, Pool, Illogan	0 9 9 .. 11	10 1/2 11	..	11 1 3 .. 0 4 0 .. Jan. 1871	
1966 East Wheal Lovell, t, Wendron	3 9 0 .. 32	31 32	..	14 16 0 .. 0 2 0 .. Nov. 1869	
2800 Foxdale, t, Isle of Man*	25 0 0 .. —	..	..	77 5 0 .. 0 10 0 .. Dec. 1870	
5000 Franklin Mills, t, Christow	3 18 6 .. —	1 1/2	..	4 8 0 .. 0 2 6 .. Aug. 1870	
2950 Gawton, c, Tavistock	3 10 6 .. —	..	..	0 3 0 .. 0 3 0 .. Jan. 1868	
15000 Great Laxey, t, Isle of Man*	4 0 0 .. 18	18 19	..	13 9 0 .. 0 8 0 .. Dec. 1870	
3000 Great Northern Manxmane*	5 0 0 .. —	..	..	.. .. 5 p.c.t. Feb. 1869	
5908 Great Wheal Vor, t, c, Helston	40 0 0 .. —	7 1/2 5 1/2	..	15 12 0 .. 0 3 6 .. June 1870	
2410 Gunnislake (Clitters), t, c	4 10 0 .. —	..	..	0 2 0 .. 0 1 0 .. Nov. 1870	
1024 Herodsfoot, t, near Liskeard	8 10 0 .. 43	41 43	..	55 10 0 .. 0 10 0 .. Feb. 1871	
10000 Killaleo, s-t, Tipperary	1 0 0 0 .. —	..	..	0 2 0 .. 0 1 0 .. Aug. 1869	
165 Levant, c, t, St. Just	10 8 1 .. —	..	..	101 0 .. 0 2 0 .. Aug. 1870	
4000 Libanus, t, Cardiganshire	15 15 0 .. —	..	..	529 0 .. 0 2 0 .. Jan. 1870	
3000 Mae-y-Safn, t, Flint*	20 0 0 .. —	..	..	4 0 0 .. 0 5 0 .. Oct. 1868	
9000 Marke Valley, c, Caradon	4 10 6 .. —	7 1/2 7 1/2	..	6 14 0 .. 0 8 0 .. Jan. 1871	
10000 Minera Mining Co., Wrexham	25 0 0 .. —	..	..	282 3 3 .. 4 0 .. Nov. 1870	
20000 Mining Co. of Ireland, c, t, L.	7 0 0 .. —	..	..	0 4 6 0 .. 0 2 1 .. July 1870	
6400 New Pembroke, t, c, Par Station	5 0 0 .. —	5 5 1/2	..	0 5 0 .. 0 2 6 .. Nov. 1869	
2000 North Levant, c, t, St. Just	10 12 0 .. 11 1/2	11 1/2 11 1/2	..	1 15 0 .. 0 10 0 .. Aug. 1870	
5610 North Wheal Crofty, c, Illogan	3 11 3 .. 11	2 1/2 2 1/2	..	0 4 0 .. 0 1 6 .. Oct. 1870	
256 Pendavons United, t, c, Camb.	86 0 .. 60	55 60	..	15 0 .. 0 5 0 .. Nov. 1870	
5000 Penhalles, t, St. Agnes	3 0 0 .. —	5 1/2 6	..	1 16 6 .. 0 3 0 .. Feb. 1871	
500 Phoenix, t, c, Linkinhorne	50 0 0 .. —	..	..	463 10 0 .. 0 7 0 .. Feb. 1871	
2000 Poldice, t, c, Gwennap	10 0 0 .. —	..	..	1 10 0 .. 0 10 0 .. Oct. 1870	
12800 Prince of Wales, c, Calstock	12 6 .. 13	15 1/2 13	..	0 10 6 .. 0 1 0 .. Nov. 1869	
15000 Pr. Evidence, t, U. L.	10 6 7 .. 36	10 12 6 .. 13	..	0 10 0 .. 0 1 0 .. Dec. 1870	
15000 Queen, s, c, Calstock*	0 10 0 .. —	..			